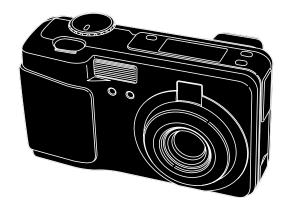
**Digital Camera** 

# Service Manual



PV-DC2090 PV-DC2590



#### **SPECIFICATIONS**

ITEM	SPECIFICATION	ITEM	SPECIFICATION			
CCD	1/2.7 inch (9.34 mm) 1,320,000 Pixels		Approx. 15 images (Super Fine mode)			
Lens	f = 5.2 – 15.6 mm (equivalent to a 34 – 102 mm lens on a 35 mm still camera.) / F2.8 – 4.7	Image Storage	Approx. 30 images (Fine mode) Approx. 100 images (Normal, Zoom, ☐ mode) Approx. 6 images ( Ⅲ mode)			
Focus	Auto/ Preset (Zone)	Image	JPEG (Design Rule for Camera File System)			
Focusing	7.9 inch (20 cm) – ∞ (approx.)	Format				
Area	, , , , , ,	Digital Signal	Serial			
Iris	F2.8 / F8	Video Signal	NTSC Composite			
Shutter Speed	1/4 – 1/750 sec.	Power Supply	4 AA Alkaline Battery/ 4 AA Ni-Cd Battery/ 4 AA nickel-hydride Battery/ AC Adaptor			
White Balance	Auto/ Indoor/ Outdoor	Power Consumption	Digital Camera: 6V DC, 1.0A (Alkaline Battery) AC Adaptor (Optional): Input: 120V AC 60Hz 9W			
LCD Viewfinder	1.8 inch (45.7 mm) TFT Color Liquid Crystal Display	Operating Condition	32 – 104 °F / 0 – 40 °C (Temperature) 10 % – 75 % (Humidity)			
Memory	CompactFlash (CF) Card (8MB)	Weight	Digital Camera: 8.4 oz./ 280 g			
Image Size	1,280 x 960 pixels (Super Fine, Fine mode) 640 x 480 pixels (Normal, Zoom, ☐ mode) 320 x 240 pixels (☐ mode)	3	AC Adaptor (Optional): 3.4 oz./ 112 g			
		Dimensions	Digital Camera: 4.63 (W) x 2.68 (H) x 2.07 (D) inch 118 (W) x 68 (H) x 52 (D) mm  AC Adaptor (Optional): 1.97 (W) x 2.83 (H) x 0.79 (D) inch 50 (W) x 72 (H) x 20 (D) mm			

Weight and dimensions shown are approximate. Design and specifications are subject to change without notice.

Regarding the Service Manual of the Electrical Adjustment Procedures for models PV-DC2090/ PV-DC2590, please refer to the Service Manual / Order No. MKE9905501A1.



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#### **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

# **TABLE OF CONTENTS**

SAFETY PRECAUTIONS 1	
PREVENTION OF ESD TO ES DEVICES 1	
SERVICE NOTES	
IC, Transistor and Chip Part Information	2-3
Service Fixtures and Tools	<u>2</u> -4
DISASSEMBLY/ASSEMBLY PROCEDURES	
Disassembly Procedures of Cabinet 3	3-1
SCHEMATIC DIAGRAMS	
Schematic Diagram	
and Circuit Board Layout Notes4	1-1
CCD Schematic Diagram	
Main I Schematic Diagram4	
Main II / Jack Schematic Diagram4	
Main III Schematic Diagram	
Main IV Schematic Diagram	
IC-Detail Block Diagrams	
Interconnection Schematic Diagram	
Signal Waveforms4	
Voltage Chart 4	I-8
CIRCUIT BOARD LAYOUT	
Main C.B.A. (component side)	5 <sub>-</sub> 1
Main C.B.A. (foil side)	
CCD C.B.A 5	)-J

BLOCK DIAGRAMS	
Overall Block Diagram 6	3-1
Power Supply Block Diagram 6	3-2
Camera Signal Process Block Diagram 6	3-3
RGB Signal Process Block Diagram6	3-4
System Control Block Diagram 6	3-5
AF Block Diagram6	3-6
EXPLODED VIEWS	
1. Lens and Frame Section	
2. Packing Parts and Accessories Section	7-2
3. Optional Accessories Section	7-3
REPLACEMENT PARTS LISTS	
Replacement Notes 8	
Mechanical Replacement Parts List 8	
Electrical Replacement Parts List 8	3-3

Note: Electrical Adjustment Procedures is a separate volume from this Service Manual.

Please refer to following manual for Electrical Adjustment Procedures.

Order number for Electrical Adjustment Procedures: MKE9905501A1.

## SAFETY PRECAUTIONS

#### **GENERAL GUIDELINES**

#### 1. IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  $\triangle$  in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

- When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
- After servicing, see to it that all the protective devices such as insulation barriers is properly installed.

# PREVENTION OF ELECTRO-STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

- Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
- After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- Use only a grounded-tip soldering iron to solder or unsolder ES devices.
- Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.
- Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
- Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
- Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

**CAUTION**: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

## **SERVICE NOTES**

#### **SERVICE POSITION**

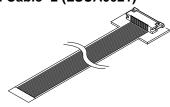
This Service Position is used for checking and replacing Parts. Use the Extension Cable -1 (LSUA0017), Extension Cable -2 (LSUA0021), Extension Cable -3 (LSUA0022), Extension Cable -4 (LSUA0023) for servicing.

#### **Service Position**

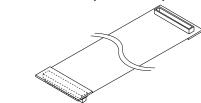
#### Extension Cable -1 (LSUA0017)



Extension Cable -2 (LSUA0021)



Extension Cable -3 (LSUA0022)



Extension Cable -4 (LSUA0023)



Fig. 1-1

#### How to place the unit in the Service Position

- Remove the Top Cover Unit (Model: B), Flash Unit, HIC Unit, Jack C.B.A., Main C.B.A., LCD Unit and Lens Unit.
- 2. (Model: B)
  - Connect the Top Cover Unit to P9 on the Main C.B.A.
- 3. Connect the Lens F.P.C. to P2 on the Main C.B.A. with Extension Cable -1.
- 4. Connect the CCD F.P.C. to P1 on the Main C.B.A. with Extension Cable -4.
- Connect the LCD F.P.C. to P4 on the Main C.B.A. with Extension Cable -2.
- Connect the leads between TP1001 and Backlight Terminal(+), and TP1002 and Backlight Terminal(-) by soldering.
- 7. Connect P6001 on the HIC Unit to P3 on the Main C.B.A. with Extension Cable -3.
- 8. Connect the Flash Unit to P5 on the Main C.B.A.
- 9. Connect the Jack C.B.A. to P6 on the Main C.B.A.
- 10. Carefully place them as shown below.

#### CAUTION:

- Be sure to discharge electricity of the Flash Unit after disassembling the Front Case Unit. For discharging electricity, refer to "HOW TO DISCHARGE THE CA-PACITOR OF FLASH UNIT," page 2-2.
- 2. DO NOT touch the high voltage points of Flash Unit after connecting the Power, page 2-2.
- 3. DO NOT allow the Flash Unit to touch to other parts.
- 4. If the Mode Dial SW. is difficult to turn, turn it while pushing Portion A and Portion B.
- Use extreme care so as to prevent cable damage when servicing.

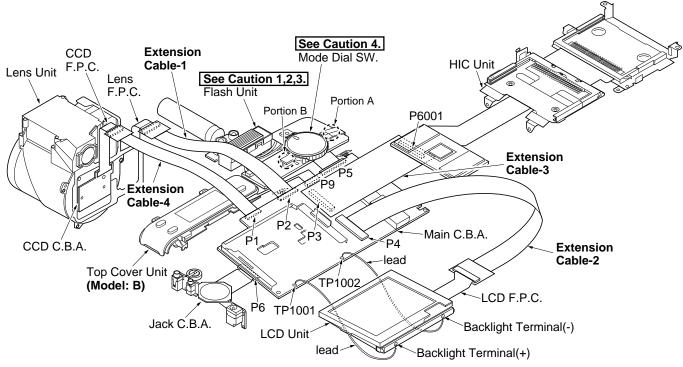


Fig. 1-2

# HOW TO DISCHARGE THE CAPACITOR OF FLASH UNIT

Be sure to discharge electricity of the Flash Unit after disassembling the Front Case Unit.

#### For discharging as follows:

- 1. Remove the Front Case Unit.
- Bend the Resistor (ERG5SJ102: 1K ohm/5W) as shown. Then, put the Resistor between both terminals of the capacitor on Flash Unit for approx. 5 senconds to discharge.

#### Note:

The Resistor can be use same or equivalent type only.

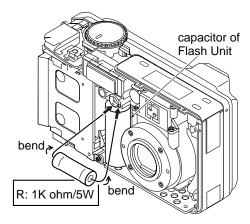


Fig. 2-1

3. Confirm that the capacitor voltage using a voltmeter.

#### **CAUTION:**

DO NOT touch the high voltage points of Flash Unit after connecting the Power.

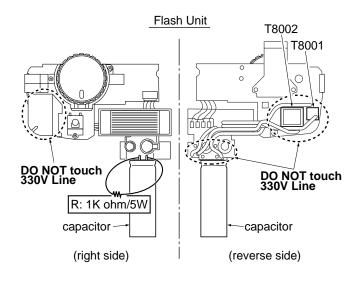


Fig. 2-2

#### **CAUTION FOR BATTERY**

#### (Battery for Digital Camera)

Do not dispose of in fire, put in backwards, disassemble, or short circuit; otherwise battery may leak or burst, causing possible personal injury.

# CLEANING LENS, OPTICAL FILTER, CCD, OPTICAL VIEWFINDER, AND LCD PANEL

Do not touch the surface of the Lens, Optical Filter, CCD, Optical Viewfinder, and LCD Panel with your hand.

When cleaning the Lens, Optical Filter, CCD, and Optical Viewfinder, dampen the Lens Cleaning Paper with Lens Cleaner, and then gently wipe the their surface with it.

When cleaning the LCD Panel, gently wipe the LCD Panel surface with Lens Cleaning Paper.

#### Note:

Lens Cleaning Paper and Lens Cleaner are available at your local camera shop, etc.

#### **HOW TO INITIALIZE EEPROM**

After the EEPROM (IC2003) or Main C.B.A. is replaced, be sure to initialize the EEPROM IC.

To initialize the EEPROM IC, use the PC-EVR Software as follows.

- Perform "Preparation" in Electrical Adjustment to start up the PC-EVR Software.
- Select "Data Init/Save" in PC-EVR Adjustment menu.
   Then, select "All Data Set" and "File Select/Create" in All Data Save/Set, and select "OK."
- 3. The initial data will be written in EEPROM.
- 4. Perform all PC-EVR Adjustment.

#### Note:

To confirm the initial data written in EEPROM:

Select "ROM Read" in EEPROM Read/Write and set address, and then select "Read" to read the data.

#### MODEL NO. IDENTIFICATION MARK

Use Marks shown in the chart below to distinguish the different models included in this Service Manual.

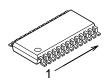
MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z

#### Note:

Refer to Item 3 of Schematic Diagram Notes of Schematic Diagram and Circuit Board Layout Notes, for mark "Z."

# IC, TRANSISTOR AND CHIP PART INFORMATION

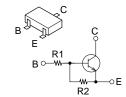
#### MAIN C.B.A.



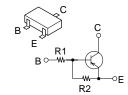
MN3112SA-E1, M62367GP, BA10358FV, TA75W558FU, S-29453AFE, UPD4721GS, RS5C314-E2, LB1836M, LB1837MLTEL3, TC74VHC595FT



2SD1119



UN9213 (R1 = 47K, R2 = 47K)



UN9113 (R1 = 47K, R2 = 47K), UN9112 (R1 = 22K, R2 = 22K)



MN5285, AN2535FBQ, BA9737KV, HD49323AF-01



TC7S86FU, S-8521F18MC

#### **GENERAL C.B.A. / ASS'Y PARTS**



HIC UNIT (LSXK0071)



2SB970, 2SB1462J, 2SC4617, 2SD2216, 2SC3931, 2SB1462, 2SC4081T106R, 2SD1819A, 2SD2216J, CPH3110

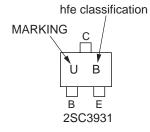
#### CCD C.B.A.

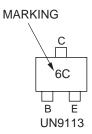


MN37741PT

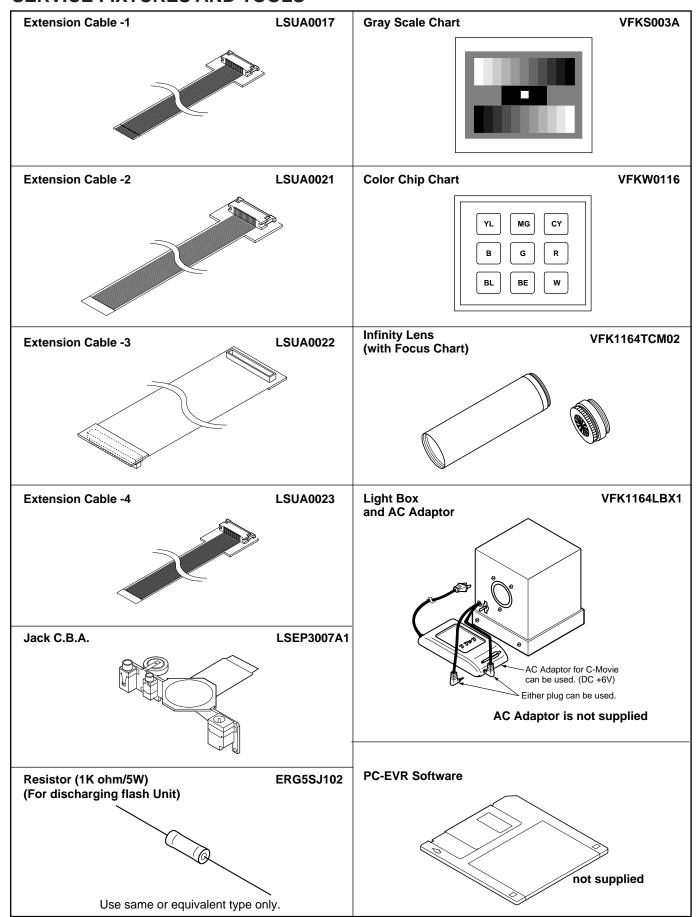
# HOW TO READ THE IDENTIFICATION MARK OF CHIP COMPONENTS.

MARKING	RKING PART NO. MARKING		PART NO.	MARKING	PART NO.	
А	A 2SB1462 1R		2SB970	5-1	MA8051-M	
B 2SC4617 6B		UN9112	UN9112 7.5			
B 2SC4081T106R 6C		UN9113	B62	SFPB-62V		
Т	2SD119	8C	UN9213	6K	MA304	
U	2SC3931	1B	MA111	MU	MA132WK	
Υ	2SD2216	2D	MA784	MU	MA142WK	
Z	2SD1819A	20	MA3200WA			





## **SERVICE FIXTURES AND TOOLS**



# **DISASSEMBLY/ASSEMBLY PROCEDURES**

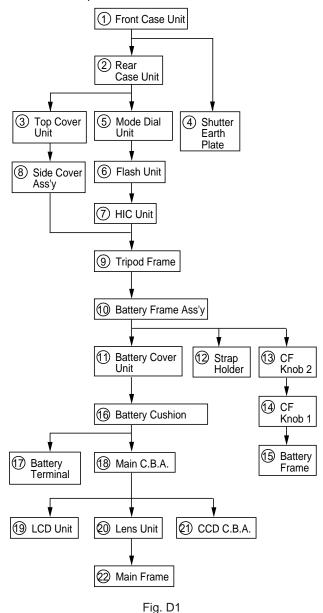
# DISASSEMBLY/ASSEMBLY PROCEDURES OF CABINET

#### **CAUTION:**

Be sure to discharge electricity of the Flash Unit after disassembling the Front Case Unit. For discharging electricity, refer to "HOW TO DISCHARGE THE CAPACITOR OF FLASH UNIT" on the Service Notes Section.

#### **Disassembly Flowchart**

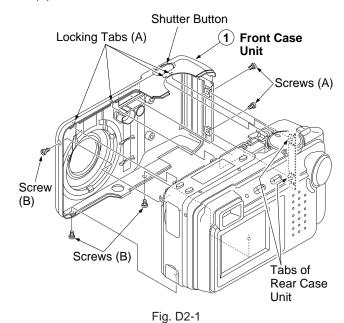
Perform all disassembly procedures in the order described in the "Disassembly Flowchart" shown below. When reassembling, use the reverse procedure.



# 1)Front Case Unit

#### **Disassembly Procedure**

- 1. Remove 2 Screws (A) and 3 Screws (B).
- Pull off the Front Case Unit while releasing 4 Locking Tabs (A) to remove.



#### **Reassembly Notes**

#### 1. Installation of Front Case Unit

 Install the Front Case Unit while fitting the Tabs of Rear Case Unit into the slots of Front Case Unit. And then, secure the Front Case Unit with 4 Locking Tabs (A) as shown. Then, tighten 2 Screws (A) while keeping the Rear Case Unit pressed downward.

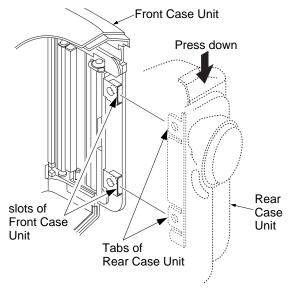


Fig. D2-2

2) Tighten 3 Screws (B).

# (2)Rear Case Unit

#### **Disassembly Procedure**

#### **CAUTION:**

Confirm that the capacitor of Flash Unit has been discharged. If not, discharge the capacitor of Flash Unit first.

 Remove 3 Screws (C), Screw (D) and Screw (Z).
 Then, pull off the Rear Case Unit while releasing 2 Locking
 Tabs (B).

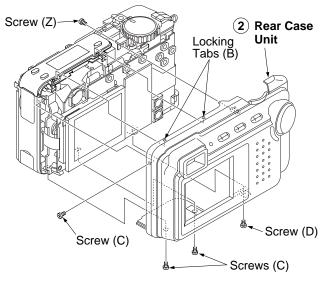


Fig. D3

# (3)Top Cover Unit

#### **Disassembly Procedure**

(Model: A)

1. Remove 2 Screws (E).

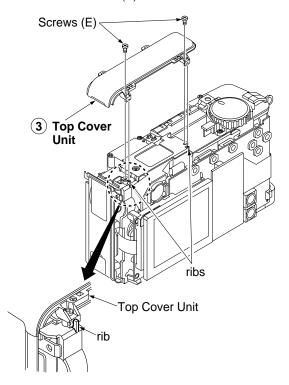
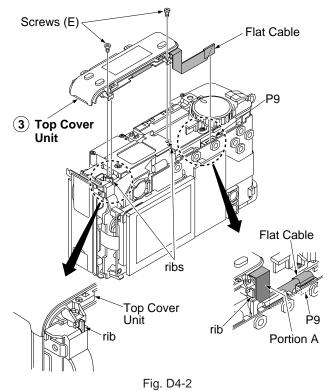


Fig. D4-1

#### (Model: B)

- 1. Remove 2 Screws (E).
- 2. Disconnect the Flat Cable from P9.



Note:

Work carefully so as not to damage the Flat Cable.

#### **Reassembly Notes**

- 1. Installation of Top Cover Unit
  - 1) (Model: B)
    - Connect the Flat Cable to P9 so as not to bend Portion A as shown in Fig. D4-2.
  - 2) Install the Top Cover Unit while fitting it over the 2 ribs.
  - 3) Tighten 2 Screws (E).

# 4 Shutter Earth Plate and 5 Mode Dial Unit

#### **Disassembly Procedure**

- $1. \ \ \, \text{Remove Screw (F)}. \, \text{Then, remove the Shutter Earth Plate}.$
- 2. Remove 2 Screws (G). Then, pull the Mode Dial Unit from 2 bosses.

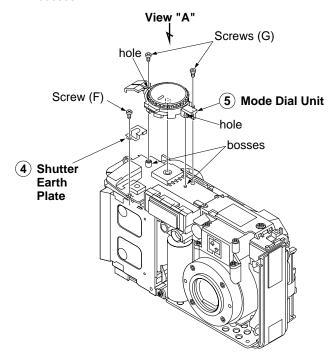


Fig. D5-1

#### **Reassembly Notes**

- 1. Installation of Shutter Earth Plate and Mode Dial Unit
  - 1) Install the Shutter Earth Plate with tightening Screw (F).
  - Confirm that the Mode Dial SW. is in "OFF" Position. (If not, turn it to set in "OFF" Position.)
  - Install the Mode Dial Unit so that 2 bosses are inserted into holes of the Mode Dial Unit. Then, tighten 2 Screws (G).

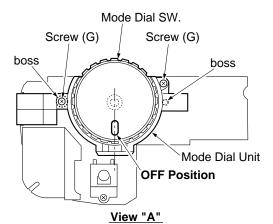


Fig. D5-2

# 6 Flash Unit

#### **Disassembly Procedure**

- 1. Disconnect the Flash F.P.C. from P5.
- 2. Pull the Flash Unit from 2 bosses. Then, remove the Flash Unit while releasing 2 Locking Tabs (C).
- 3. Remove the Operation P.C.B. Barrier.

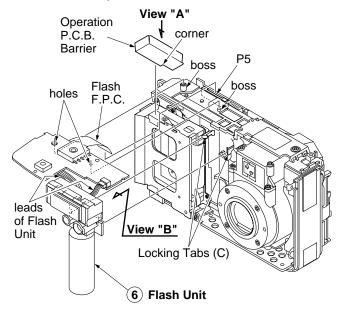


Fig. D6-1

#### **CAUTION:**

DO NOT allow the Flash Unit to touch to other parts.

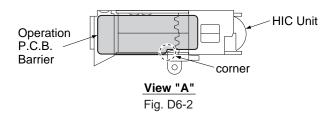
#### Note:

- Flash Unit should be discharged before disassembling. (Refer to "HOW TO DISCHARGE THE CAPACITOR OF FLASH UNIT" on the Service Notes Section.)
- Work carefully so as not to damage the F.P.C. and leads.

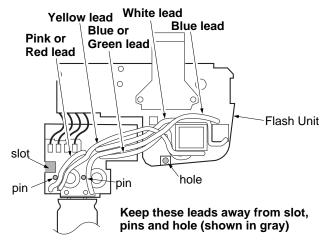
#### **Reassembly Notes**

#### 1. Installation of Flash Unit

 Place the Operation P.C.B. Barrier while fitting the corner of Operation P.C.B. Barrier to the corner of the HIC Unit together as shown.



2) Confirm that the 5 leads of the Flash Unit are formed and positioned correctly as shown in Fig. D6-3.

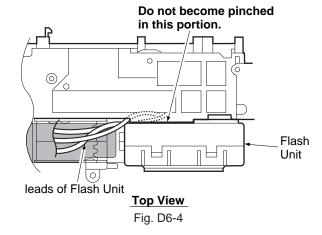


#### View "B"

Fig. D6-3

3) Set the Flash Unit with 2 Locking Tabs (C). **Note:** 

Thread the leads of Flash Unit through the bottom so that they do not become pinched.



- Insert so that 2 bosses are inserted into holes of the Flash Unit.
- 5) Connect the Flash F.P.C. to P5.

# 7)HIC Unit

#### **Disassembly Procedure**

- 1. Disconnect P6001 on the HIC Unit from P3.
- 2. Remove Screw (H-1), Screw (I) and Screw (J-1).
- 3. Open the HIC Unit while releasing Locking Tab (D). Then, pull the CF Guide Plate Unit from the HIC Unit.
- 4. Remove Screw (H-2) and 2 Screws (J-2).

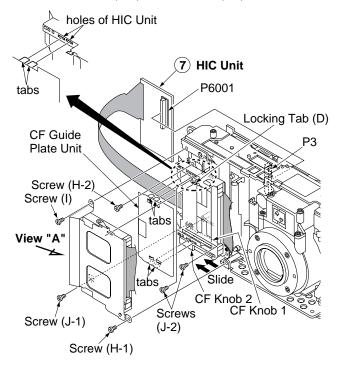


Fig. D7-1

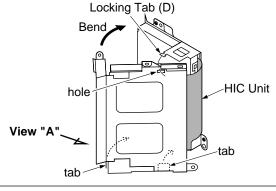
#### Note:

Work carefully so as not to damage the F.P.C.

#### **Reassembly Notes**

#### 1. Installation of HIC Unit

- 1) Before installing the HIC Unit, slide the CF Knob 1 and CF Knob 2 as indicated by the arrow in Fig. D7-1.
- 2) Set the HIC Unit with 2 Screws (J-2) and Screw (H-2).
- Install the CF Guide Plate Unit so that 4 tabs of the CF Guide Plate Unit are inserted into holes of the HIC Unit.
- 4) Bend the HIC Unit to set so that Locking Tab (D) is inserted in hole, and 2 tabs of HIC Unit are inserted into slots as shown in Fig. D7-2.



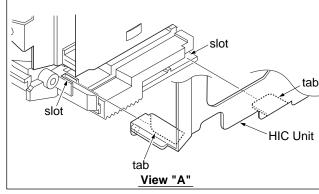


Fig. D7-2

- 5) Tighten Screw (J-1), Screw (I) and Screw (H-1).
- 6) Connect P6001on the HIC Unit to P3.

# 8 Side Cover Ass'y

#### **Disassembly Procedure**

- 1. Disconnect the Jack F.P.C. from P6.
- 2. Remove 2 Screws (K).

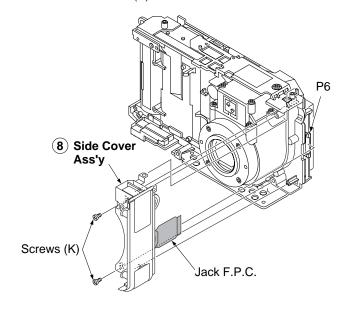


Fig. D8

# 9 Tripod Frame

#### **Disassembly Procedure**

1. Remove Screw (L).

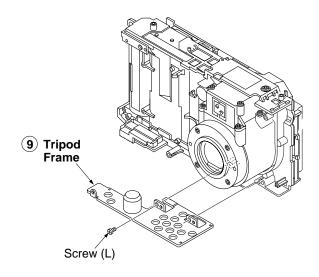


Fig. D9

# 10 Battery Frame Ass'y and 11 Battery Cover Unit

#### **Disassembly Procedure**

- 1. Remove 2 Screws (M).
- Remove the Battery Frame Ass'y while releasing 2 Locking Tabs (E). The Battery Cover Unit will also be removed.

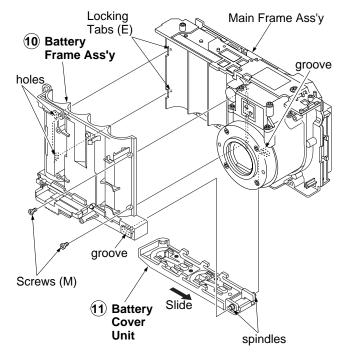


Fig. D10

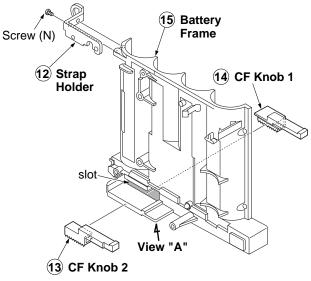
#### **Reassembly Notes**

- Installation of Battery Frame Ass'y and Battery Cover
  Unit
  - Place the Battery Cover Unit to the Main Frame Ass'y so that the spindle of the Battery Cover Unit fits into groove on the Main Frame Ass'y.
  - 2) Install the Battery Frame Ass'y so that the other spindle of the Battery Cover Unit fits into the groove on the Battery Frame Ass'y while inserting 2 Locking Tabs (E) into holes on the Battery Frame Ass'y.
  - 3) Tighten 2 Screws (M).
  - 4) After installing, slide the Battery Cover Unit to close as indicated by the arrow.

# 12 Strap Holder, 13 CF Knob 2, 14 CF Knob 1, and 15 Battery Frame

#### **Disassembly Procedure**

- 1. Remove Screw (N), and remove the Strap Holder.
- 2. Pull off the CF Knob 2.
- 3. Slide the CF Knob 1 as indicated by the arrow ①. Then, pull it off from slot as indicated by the arrow ②.



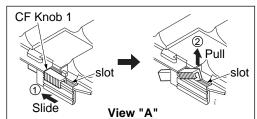


Fig. D11-1

#### **Reassembly Notes**

- 1. Installation of CF Knob 1 and CF Knob 2
  - 1) Insert the CF Knob 1 to slot as shown.
  - Push down the CF Knob 1 as indicated by the arrow to install.

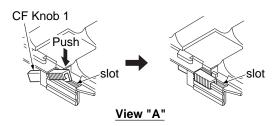


Fig. D11-2

- 3) Install the CF Knob 2.
- 4) After installing, confirm that the CF Knob 1 and the CF Knob 2 slide properly.

# 16 Battery Cushion and 17 Battery Terminal Disassembly Procedure

- 1. Pull off the Battery Cushion.
- 2. Pull off the Battery Terminal.

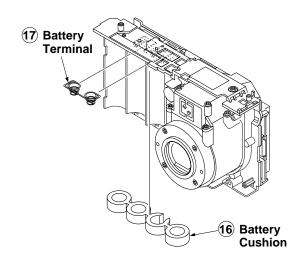


Fig. D12

#### Note:

Removed Battery Cushion is not reusable. If removed, install a new one.

# 18 Main C.B.A.

#### **Disassembly Procedure**

- 1. Remove Screw (O).
- 2. Disconnect the CCD F.P.C. from P1.
- 3. Disconnect the Lens F.P.C. from P2.
- Release 3 Locking Tabs (F). Then, remove the Main C.B.A. while releasing the Battery Terminals of Main C.B.A. from slots.

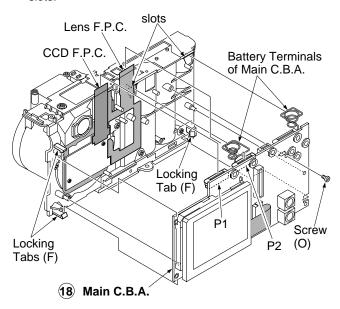


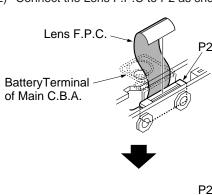
Fig. D13-1

#### Note:

Work carefully so as not to damage the F.P.C.

### **Reassembly Notes**

- 1. Installation of Main C.B.A.
  - Insert the Battery Terminals of Main C.B.A. into slots while avoiding the Lens F.P.C.
  - 2) Connect the Lens F.P.C to P2 as shown.



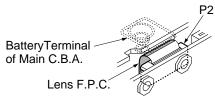


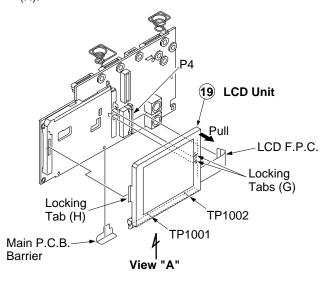
Fig. D13-2

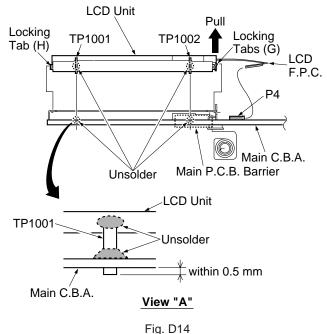
- 3) Connect the CCD F.P.C. to P1.
- 4) Secure the Main C.B.A. with 3 Locking Tabs (F).
- 5) Tighten Screw (O).

# (19)LCD Unit

#### **Disassembly Procedure**

- 1. Disconnect the LCD F.P.C. from P4.
- 2. Remove the Main P.C.B. Barrier.
- 3. Unsolder the TP1001 and TP1002 as shown.
- Pull the LCD Unit while releasing 2 Locking Tabs (G) first. Then, remove the LCD Unit while releasing Locking Tab (H).





# 20 Lens Unit, 21 CCD C.B.A. and 22 Main Frame

#### **Disassembly Procedure**

 Remove 3 Screws (P). Then, remove the Lens Unit with CCD C.B.A.

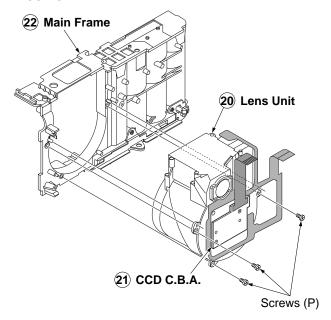


Fig. D15-1

Remove 2 Screws (Q). Then, remove the CCD C.B.A. from the Lens Unit as shown in Fig D15-2.

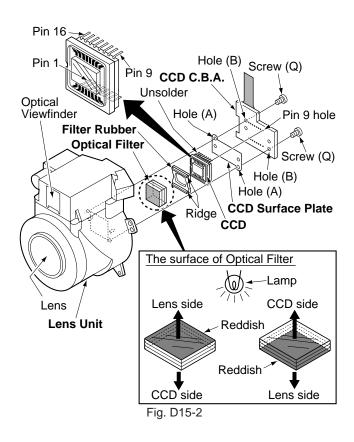
#### Note:

When removing the CCD C.B.A., take care so that the Optical Filter does not fall out.

- 3. Remove the Optical Filter and Filter Rubber from the Lens Unit
- Unsolder the CCD Pins. Then, remove the CCD and the CCD Surface Plate from CCD C.B.A.

#### Note:

- Do not apply heat to the CCD directly when soldering. Keep soldering time to a minimum to prevent damage to the CCD.
- 2) Do not touch the CCD window surface when servicing.



#### **Reassembly Notes**

#### 1. Installation of CCD C.B.A.

- 1) Install the Optical Filter in the Lens Unit correctly.
  - To distinguish the CCD side from the Lens side, hold the Optical Filter under a lamp.
     Examine both sides of the filter at an angle. The surface closest to you that appears reddish is the Lens side as shown in Fig. D15-2.
  - Make sure that no dust gets on the Optical Filter and in the Lens Unit. Clean the Optical Filter with lens cleaning paper dampened with lens cleaner if necessary.
- Install the Filter Rubber on the Optical Filter with the ridge side facing toward the Optical Filter.
  - Make sure that no dust gets on the Filter Rubber.
- 3) Place the CCD Surface Plate so that Holes (A) are aligned with Holes (B) on the CCD C.B.A.
- Carefully install the CCD onto the CCD C.B.A. by soldering.
  - Do not apply heat to the CCD directly when soldering. Keep soldering time to a minimum to prevent damage to the CCD.
  - Install the CCD and CCD Surface Plate so that there are no gaps between them.
  - When installing, do not touch the CCD window surface and make sure that no dust gets on the CCD. Clean the CCD window surface with lens cleaning paper dampened with lens cleaner if necessary.
- Install the CCD C.B.A. to the Lens Unit. Then, secure 2 Screws (N) while keeping the CCD C.B.A. pressed toward the upper right corner.
  - Do not touch the Lens and Optical Viewfinder surface.
     Clean their surface with lens cleaning paper dampened with lens cleaner if necessary.

# SCHEMATIC DIAGRAMS SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES

#### 1. Important safety notice

Components identified by the sign  $\triangle$  have special characteristics important for safety. When replacing any of these components. Use only the specified parts.

- 2. Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since this drawing was prepared.
- 3. Use only original replacement parts:

To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

- 4. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.
- 5. Test point information
  - (2): Test point with a no test pin.

## **Schematic Diagram Notes**

Indication for Zener Voltage of Zener Diodes
 The Zener Voltage of Zener Diodes are indicated as such on Schematic Diagrams.

#### Example:

(6.2V).....Zener Voltage

2. How to identify Connectors

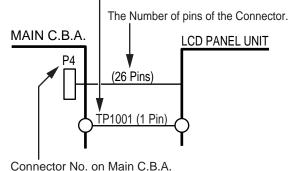
Each connector is labeled with a Connector No. and Pin No. Indicating what it is connected to, in other words, its counter part.

Use the interconnection schematic diagram to find the connection between associated connectors.

#### Example:

The connections between C.B.A.s are shown below.

Ref. No. of the connection parts such as jumper, flexible cable which is supplied as a replacement parts.



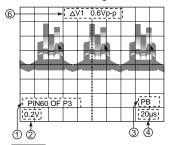
3. Parts enclosed in dashed lines marked "Z" are not used in any models included in this service manual.



#### **Signal Waveform Note**

Waveform Measurement
Input: Color Chip Chart
Illumination: 1500 lux
Color Temperature: 5100°K

#### How to read Signal Waveform



- 1 Connecting Point
- ② Volts/Div
- Operation Mode of VCR
- 4) Time/Div
- (5) Waveform Point on Schematic
- 6 ΔV1:Peak to Peak

## **WF6 ◆** ⑤

## **Voltage Chart Note**

Voltage Measurement

a. Color chip signal in REC mode.

b. ---: Unmeasurable or not necessary to measure.

### **Circuit Board Layout Note**

Circuit Board Layout shows components installed for various models.

For proper parts content for the model you are servicing, please refer to the schematic diagram and parts list.

#### Comparison chart of models & marks

MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z

#### Note:

Refer to item 3 of Schematic Diagram Notes for mark "Z".

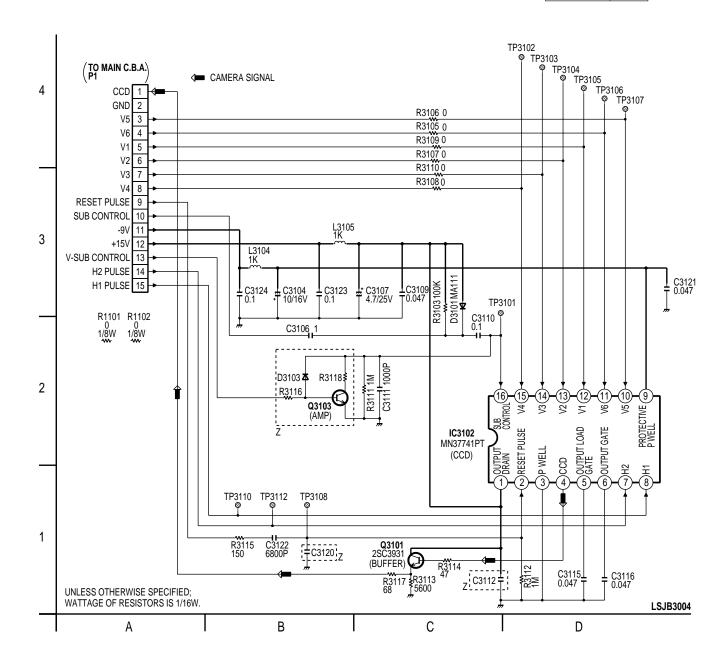
#### **CCD SCHEMATIC DIAGRAM**

#### NOTE:

FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

# COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z



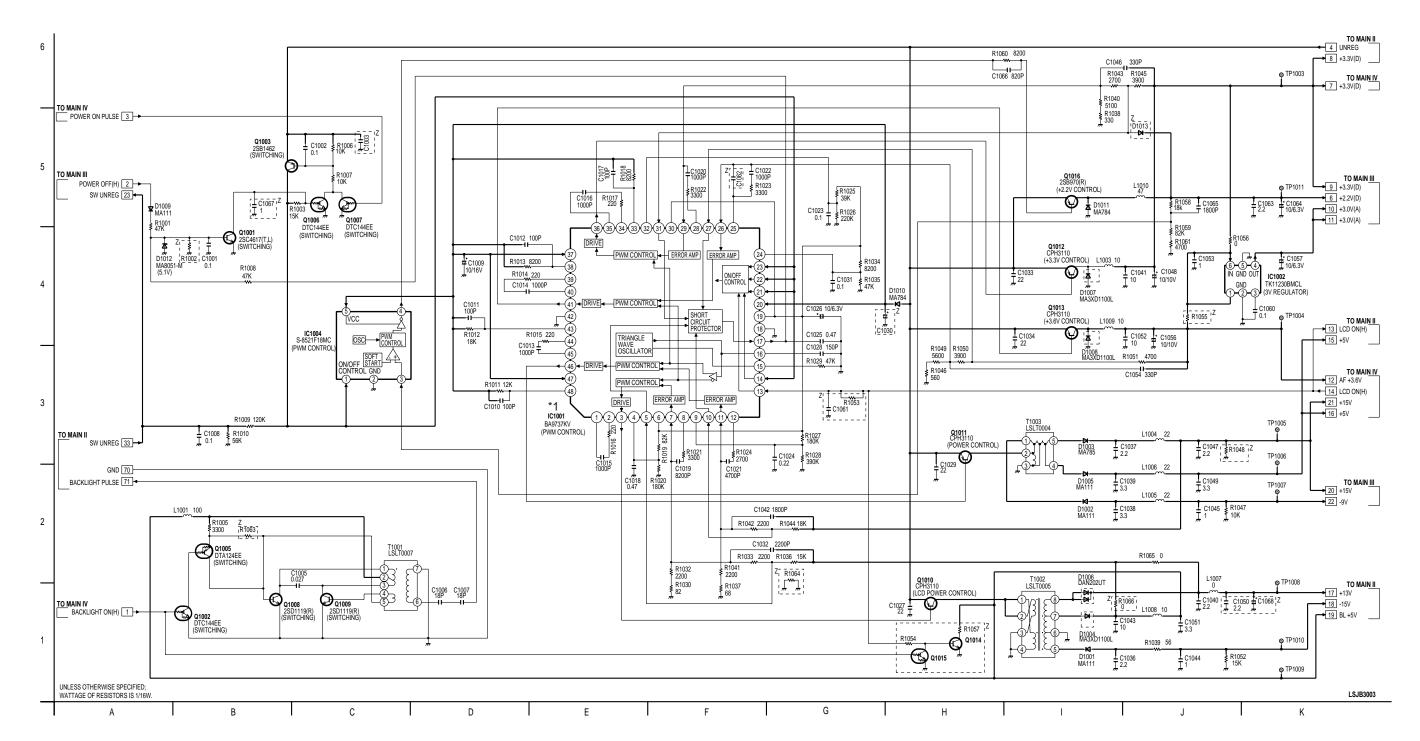
NOTE:

FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z

\*1 NOTE: FOR DETAIL BLOCK DIAGRAM OF IC's, REFER TO PAGE 4-6.



NOTE

FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

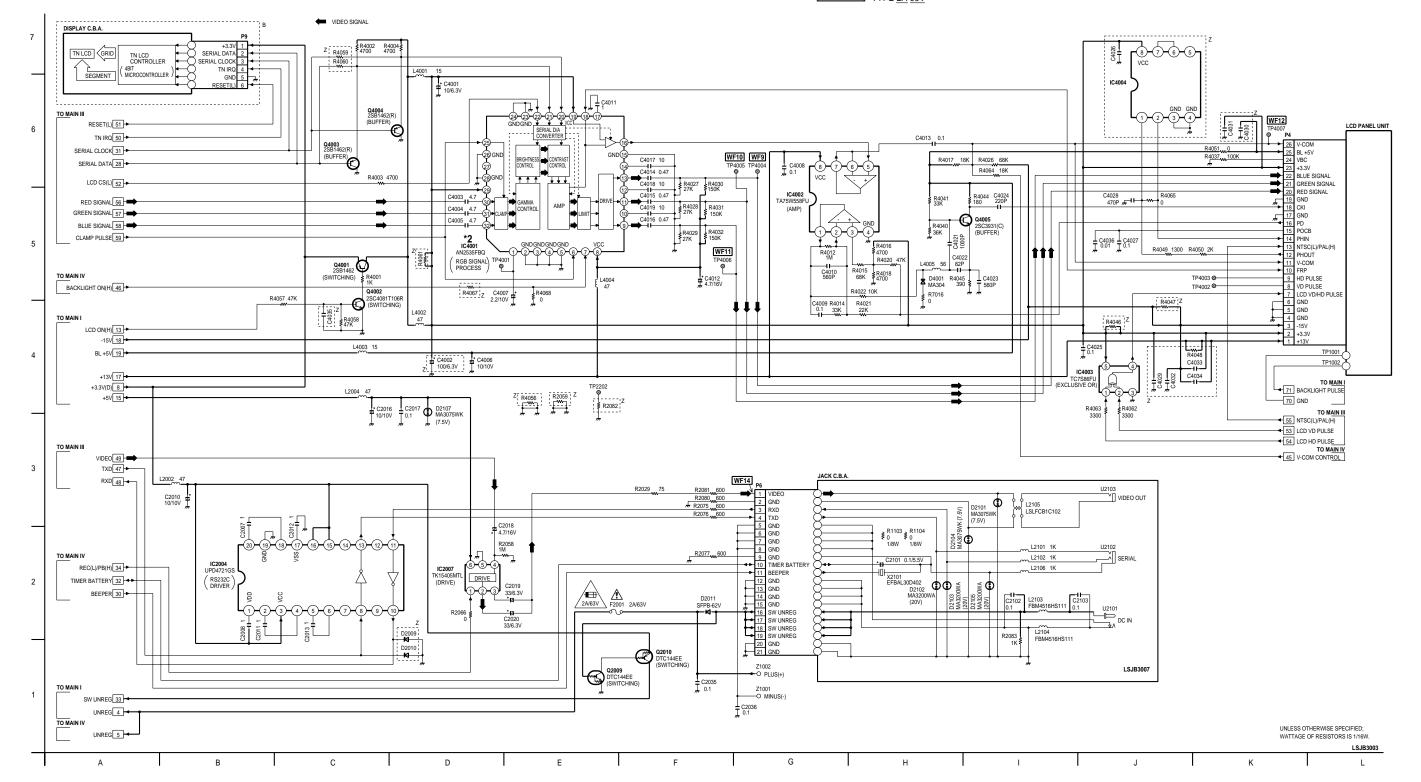
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN A HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z
	ı

\*2 NOTE: FOR DETAIL BLOCK DIAGRAM OF IC's, REFER TO PAGE 4-6.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 63V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 63V

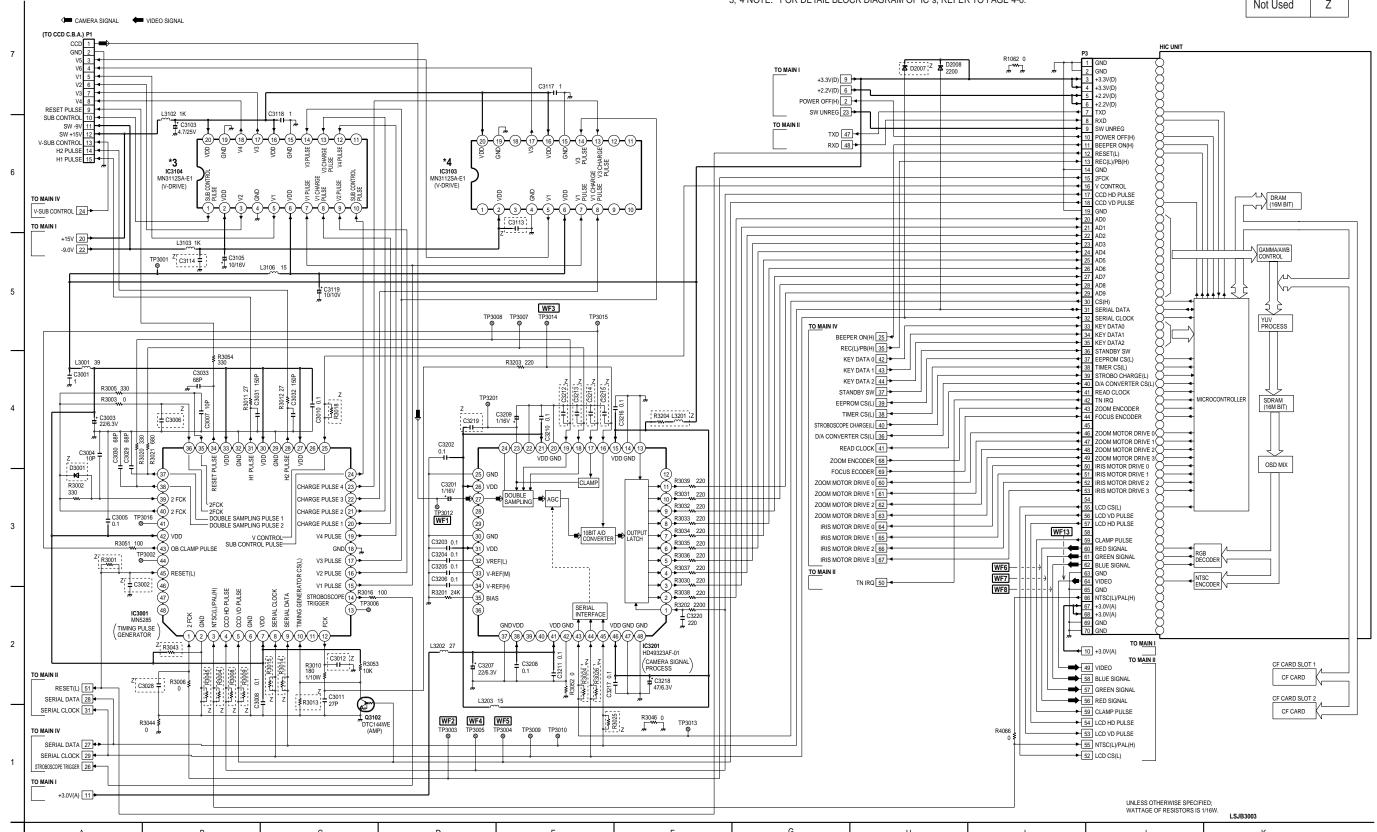


IOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z

\*3,\*4 NOTE: FOR DETAIL BLOCK DIAGRAM OF IC's, REFER TO PAGE 4-6.



NOTE:

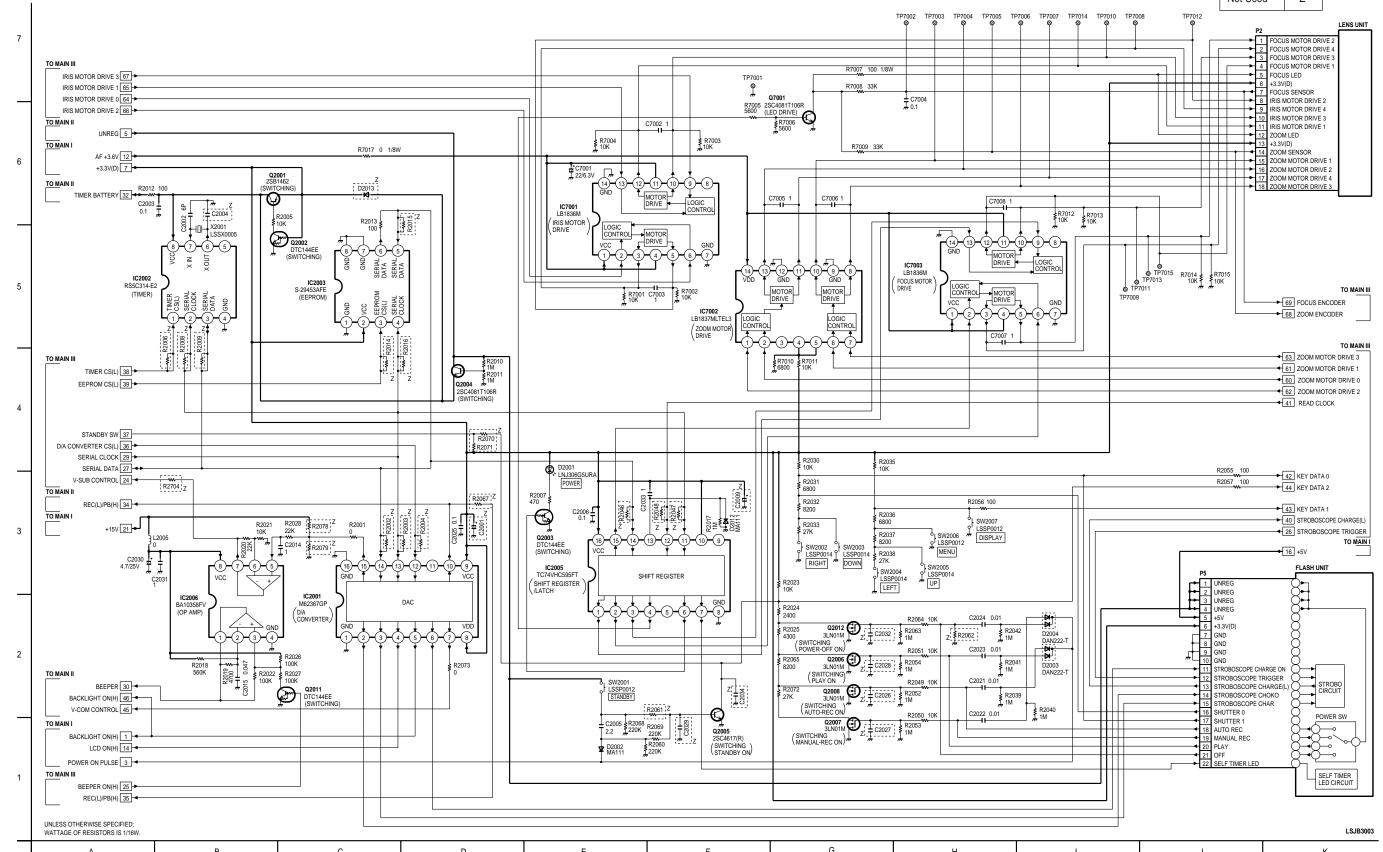
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

 MODEL
 MARK

 PV-DC2090
 A

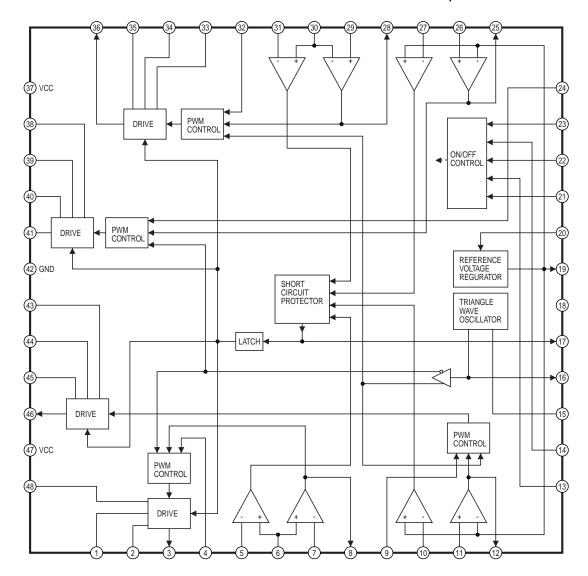
 PV-DC2590
 B

 Not Used
 Z

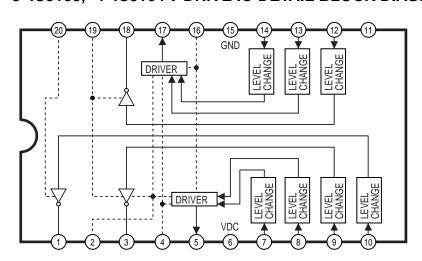


## **IC-DETAIL BLOCK DIAGRAMS**

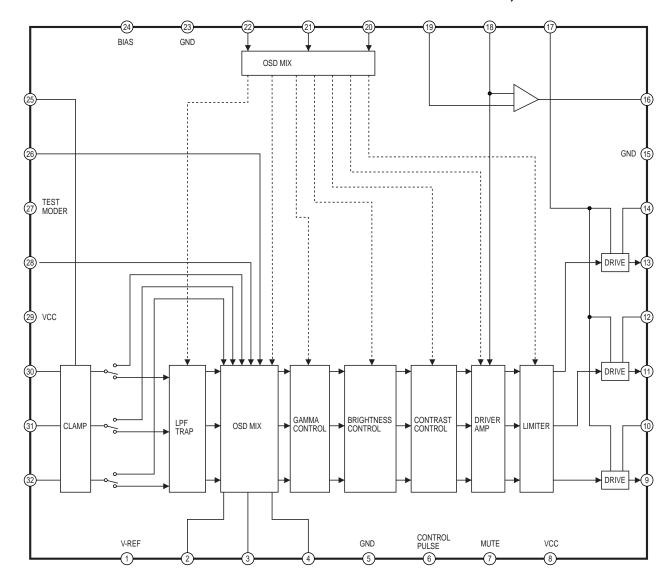
# \*1 IC1001 PWM CONTROL IC-DETAIL BLOCK DIAGRAM, BA9737KV



## \*3 IC3103, \*4 IC3104 V DRIVE IC-DETAIL BLOCK DIAGRAM, MN3112SA-E1

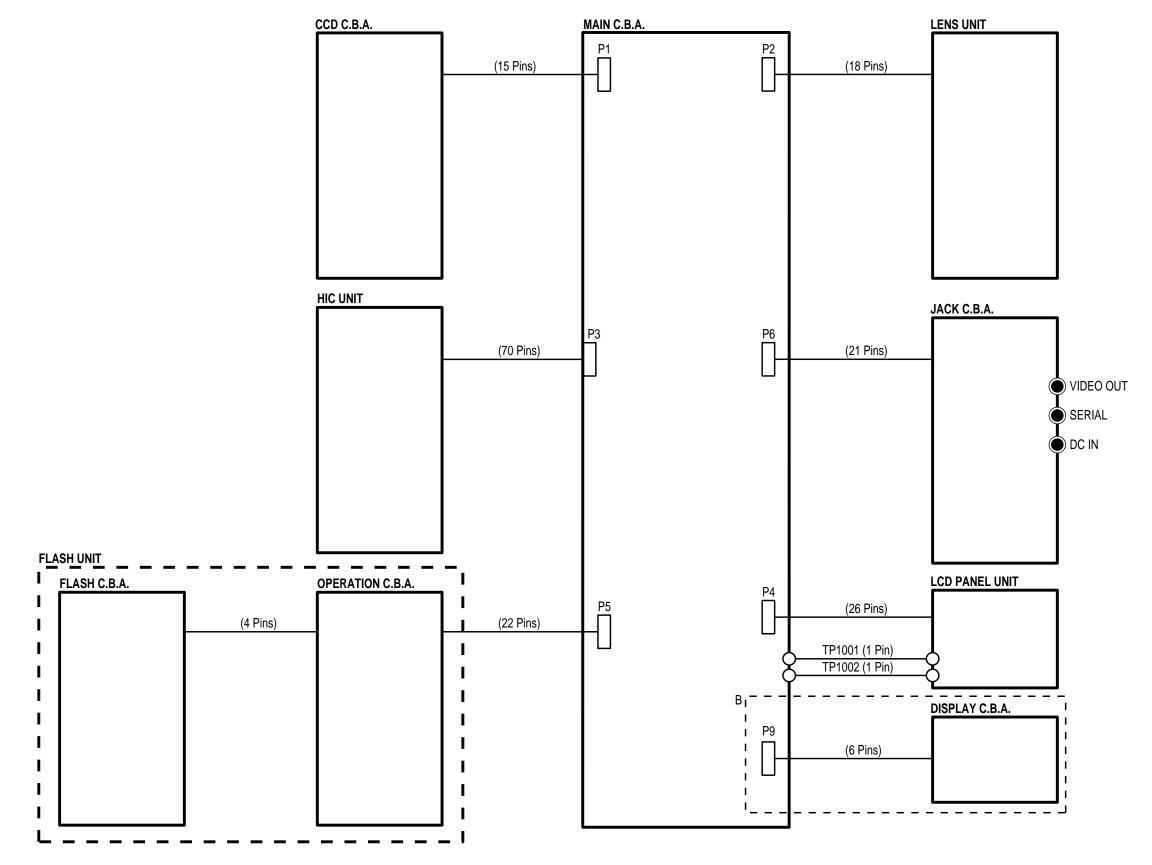


# \*2 IC4001 RGB SIGNAL PROCESS IC-DETAIL BLOCK DIAGRAM, AN2535FBQ



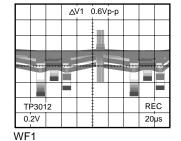
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

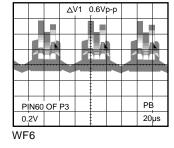
MODEL	MARK
PV-DC2090	Α
PV-DC2590	В
Not Used	Z

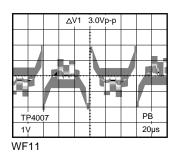


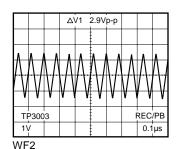
# SIGNAL WAVEFORMS

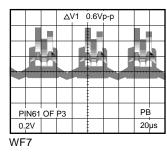
#### MAIN CIRCUIT

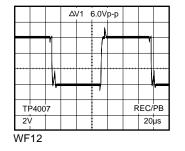


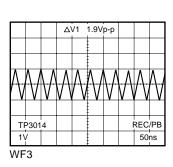


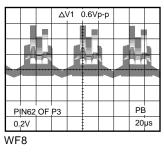


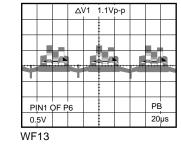


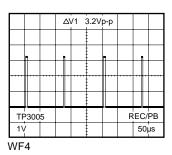


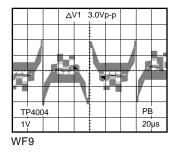


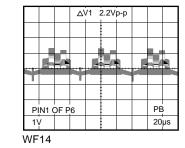


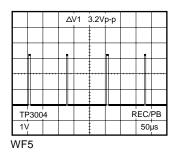












		Δ\	/1 :	3.0V	р-р		
				1			
/							
		44			萓	7	
•	7		1	<u></u>	-	/	
TP40	₱ 06					PE	
1V						20	μs

## **VOLTAGE CHART**

FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

#### MAIN CIRCUIT

IC1001     6       1     4.3       2     5.4       3     5.1       4     1.1       5     3.0       6     1.6       7     1.6       8     0.9       9     1.1       10     3.0       11     1.6	TAGE 3.4 5.6 0 11.9 3.3 5.3 0 0 0 0 3.4
1     4.3       2     5.4       3     5.1       4     1.1       5     3.0       6     1.6       7     1.6       8     0.9       9     1.1       10     3.0       11     1.6	5.6 0 1.9 3.3 5.3 0 0 0
2     5.4       3     5.1       4     1.1       5     3.0       6     1.6       7     1.6       8     0.9       9     1.1       10     3.0       11     1.6	0 1.9 3.3 5.3 0 0 0 3.4
2     5.4       3     5.1       4     1.1       5     3.0       6     1.6       7     1.6       8     0.9       9     1.1       10     3.0       11     1.6	0 1.9 3.3 5.3 0 0 0 3.4
4     1.1       5     3.0       6     1.6       7     1.6       8     0.9       9     1.1       10     3.0       11     1.6	1.9 3.3 5.3 0 0 0 3.4
5     3.0       6     1.6       7     1.6       8     0.9       9     1.1       10     3.0       11     1.6	3.3 5.3 0 0 0 3.4
6 1.6 5 IC2001 8 0.9 9 1.1 2 10 3.0 11 1.6 4	5.3 0 0 0 3.4
7 1.6 8 0.9 9 1.1 2 10 3.0 11 1.6 4	0 0 0 3.4
8     0.9       9     1.1       10     3.0       11     1.6	0 0 3.4
9 1.1 10 3.0 11 1.6 2	0 0 3.4
9     1.1       10     3.0       11     1.6	0 3.4
11 1.6 4	3.4
	2.4
12 0.6 5	3.4
	0
	1.3
	3.4
	3.4
	0
18 0 11	
	0.1
	3.3
	3.3
	0
	0
24 1.4 IC2002	
	0.1
	0
	3.3
	0
29 1.0 5	_
	0.6
	0.8
	3.4
33 4.8 IC2003	
	0
	3.4
	3.4
	3.3
	3.3
39 5.7 6	0
	0
	0
42 0 IC2004	
	3.0
	0.1
	3.3
	0.1
	0.1
	0.1
IC1002 7	-
	0.3
2 0 9	
	0.1
	0.1
5 0 12	-
- 1 - 1 - 1	

PIN NO.	VOLTAGE		PIN NO.	VOLTAGE		PIN NO.	VOLTAGE
13	0		14	0		20	15.0
14			15	0		IC3104	
15	3.3		16	0.2		1	0
16	3.3		17	3.1		2	-9.1
17	0		18	0		3	-0.4
18	0.1		19	3.1		4	0
19	0		20	3.4		5	-0.4
20	0.1		21	3.4		6	3.4
IC2005			22	0		7	0
1	0		23	3.4		8	3.4
2	0		24	3.4		9	0.2
3	0		25	0		10	3.4
4	0		26			11	
5			27	3.4		12	0
6	3.4		28	1.3		13	3.9
7	0		29	0		14	3.1
8	0		30	3.4		15	0
9			31	1.5		16	15.0
10	3.4		32	0		17	-8.4
11	3.3		33	0		18	0
12	0		34	3.4		19	0
13	0		35	0.5		20	15.0
14	3.3		36	1.6		IC3201	
15	0		37	1.6		1	0
16	3.4		38	0.8		2	1.4
IC2006			39	1.7		3	1.4
1	13.9		40	1.6		4	1.3
2	13.9		41	0.7		5	1.3
3	14.4		42	3.4		6	1.1
4	0		43	0.1		7	1.4
5	0		44	3.4		8	1.4
6	0		45	3.4		9	1.4
7	0.1		46			10	1.4
8	15.0		47			11	1.4
IC2007			48			12	
1	0		IC3103			13	0
2	0		1			14	0
3	0		2	-9.1		15	3.1
4	0.1		3			16	1.7
5	0		4	0		17	0
6	0		5	-0.4		18	0.9
IC3001			6	3.4		19	0.9
1	1.7		7	0		20	0
2	0		8	0		21	3.0
3	0		9			22	0
4	0.2		10			23	1.4
5	0.1		11			24	
6	0		12			25	0
7	3.4		13	3.4		26	
8	3.3		14	3.1		27	10.9
9	3.3		15	0		28	
10	0		16	15.0		29	
11			17	-8.4		30	0
12	1.4		18			31	3.0
13	0		19	0		32	1.2
- 13	U	ı	19	J	ı	υZ	1.4

PIN NO.	VOLTAGE
-	
33	1.5
34	1.9
35	1.3
36	
37	0
38	3.0
39	
40	
41	3.0
42	0
43	3.3
44	3.3
45	3.3
46	3.0
47	0
48	0
IC4001	
1	0
2	0
3	0
4	0
5	0
6	0.2
7	0
8	12.9
9	6.5
10	
	6.6
11	6.6
12	6.6
13	6.6
14	6.6
15	0 4.9
16	4.9
17	0
18	1.7
19	3.3
20	3.0
21	3.0
22	0
	0
23	
24	0
25	0
26	0
27	
28	0
29	0
30	1.9
31	1.9
32	1.9
IC4002	
1	3.5
2	1.7
3	1.7
4	0
. 4	U
5	4.8

PIN NO.	VOLTAGE	PIN NO.	٧
6	4.9		
7		Q1001	
8	0 12.9	Е	
C4003		l c	
1	0.5	В	
2	0.5	01002	
3	0	Q1002 E	
4	0.5	C	
5	3.3	В	
C7001		Q1003	
1	3.7	E	
2			
	0	С	
3	0	В	
4	3.7	Q1005 E C B	
5	0	E	
6	0	C	
7	0	В	
8		Q1006	
9	0	L E	
10	0	С	
11	3.7	В	
12	0	Q1007	
13	0	E	
14	0	С	
C7002		В	
1	0	Q1008	
2	0	E	
3		С	
4	1.4	l I r l	
5	1.4	Q1009	
6	0	E	
7	0	С	
8	0	В	
9	0	Q1010	
10	0	E	
11	0	E C	
12	0	В	
13	0.1	Q1011	
14	3.7	E	
C7003		C	
1	3.0	В	
2	0.0	Q1012	
3	0	E	
4	3.7	C	
5		В	
	0	Q1013	
6 7	0	E	
	0		
8		С	
9	0	B 01016	
10	0	Q1016	
11	3.0	E	
12	0	С	
13	0	B	
14	0	Q2001	

IN NO.	VOLTAGE	PIN NO.	VOLTAGE
		Е	3.4
1001		С	3.4
Е	0	В	2.8
С	4.3	Q2002	
В	0.1	E	0
1002		С	0.1
Е	0	В	3.4
С	0	Q2003	
В	3.4	Е	0
1003		С	0.1
Е	5.6	В	3.4
С	5.6	Q2004	
В	4.9	E	3.4
1005		C	5.6
E	1.4	В	2.6
С	0.4	Q2005	
В	0.4	<u>Q2003</u>	0
1006	0	C	2.1
	0	В	0
E	-0.1	Q2006	0
С	4.3		
B 1007	4.3	S	0
		D	1.2
E	0	G	0
С	0	Q2007	
В	0.2	S	0
1008		D	0.1
E C	0	G	0
С	5.0	Q2008	
В	0.5	S	0
1009		D	0
Е	0	G	5.6
С	5.0	Q2009	
В	0.6	E	3.4
1010		С	3.4
E	5.6	В	3.6
С	0	Q2010	
В	5.1	E	3.4
1011		С	0.6
E C	5.6	В	3.4
С	0	Q2011	
В	5.3	E	0
1012		С	14.3
Е	5.6	В	0.1
С	3.4	Q2012	
В	5.1	S	0.1
1013		D	1.7
Е	5.6	G	0
С	3.7	Q4001	
В	5.9	E	3.4
1016		C	3.3
E	5.6	В	2.6
С	2.3	Q4002	1
В	6.8	E	0
2001	5.0	C	0.1
			J.,
		L	

PIN NO.	VOLTAGE	
В	0.7	
Q4003		
E	3.0	
C	0	
В	3.3	
Q4004	0.0	
E	3.0	
С	0	
В	3.3	
Q4005	5.5	
E	1.4	
С	4.4	
B	1.9	
Q7001	•	
E	0	
С	3.2	
В	0	
TP1001	0	
TP1002	0	
TP1003	3.3	
TP1004	3.6	
TP1005	15.0	•
TP1006	5.0	
TP1007	-9.0	
TP1008	12.9	
TP1009	5.1	
TP1010	-15.0	
TP1011	2.2	
TP3001	3.4	
TP3002	3.4	
TP3003	1.7	
TP3004	0.1	
TP3005	0.2	
TP3006	0	
TP3007	0.9	
TP3008	0.9	
TP3009	3.3	
TP3010	3.3	
TP3012	10.9	
TP3013	3.3	
TP3014	1.7	
TP3015	0	
TP3201	1.4	
TP4001	0	
TP4002	3.3	
TP4003	3.1	
TP4004	6.6	
TP4005	6.6	
TP4006	6.6	
TP4007	0.9	
TP7001	0	
TP7002	8.4	
TD7000	0.4	Ī

PIN NO.	VOLTAGE	
TP7004	0.1	
TP7005	2.9	
TP7006	1.0	
TP7007	0.1	
TP7008	0	
TP7009	0	
TP7010	0	
TP7011	0	
TP7012	0	
TP7013	10.9	
TP7014	3.6	
TP7015	0	
P1		
1	10.9	
2	0	
3	0.4	
4	8.4	
5	0.4	
6	0.4	
7	8.4	
8	8.5	
9	0.6	
10	8.9	
11	0.1	
12	15.0	
13	-9.1	
14	1.1	
15	1.5	
P2		
1	0.1	
2	0	
3	0	
4	0	
5	3.8	
6	3.4	
7	2.8	
8	0	
9	0	
10	0	
11	0	
12	3.6	
13	3.4	
14	2.9	
15	0.1	
16	0.1	
17	0.1	
18	1.0	
P3		
1	0	
2	0	
3	3.3	
4	3.3	
<u> </u>		

2.2

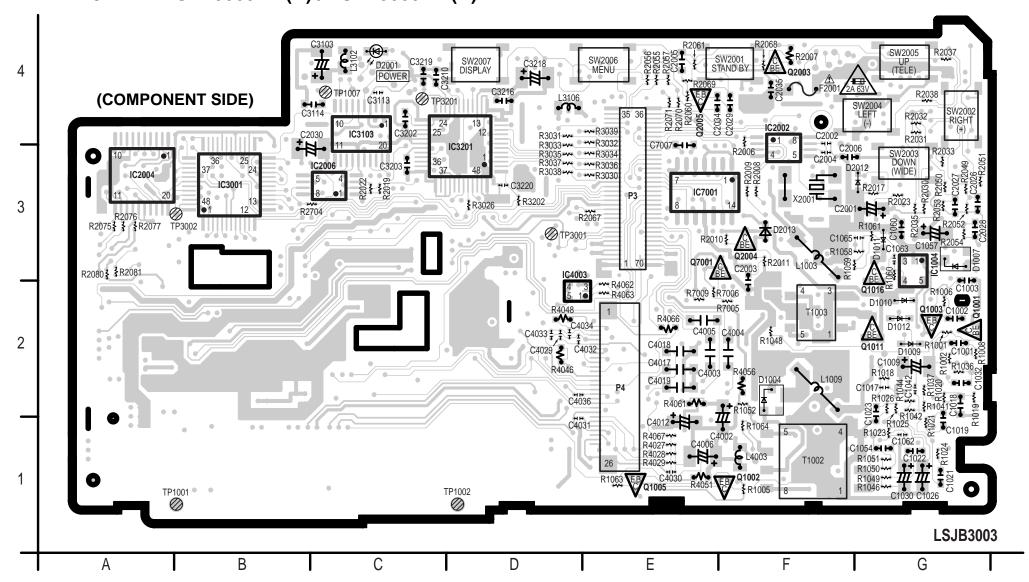
PIN NO.	VOLTAGE		PIN NO.	VOLTAGE
6	2.2		60	1.9
7	0.3		61	1.9
8	0.1		62	1.9
9	4.9		63	0
10	0.1		64	0.1
11	0.1		65	0
12	3.4		66	0.1
13			67	3.0
14	0		68	3.0
15	1.7		69	0
16	0		70	0
17	0.2		P4	0
18				12.0
	0.1		1	13.0
19	0		2	3.3
20	1.4		3	-15.2
21	1.4		4	0
22	1.3		5	0
23	1.3		6	0
24	1.1		7	0.5
25	1.4		8	3.3
26	1.4		9	3.1
27	1.4		10	1.7
28	1.4		11	0.9
29	1.4		12	1.7
30	3.3		13	0.1
31	3.3		14	1.7
32	3.3		15	3.3
33	2.1		16	1.7
34	2.1		17	0
35	2.1		18	1.0
36			19	0
37	3.4		20	2.0
38	0.1		21	2.0
39	3.4		22	2.0
40	0.1		23	3.3
41	0.1		24	1.7
42	3.4		25	5.1
43	2.9		26	0.9
44	0.3		P5	0.8
	0.3			
45 46			1	E 6
	0		2	5.6
47	0		3	5.6
48	0		4	5.6
49	0		5	5.4
50	0		6	3.4
51	0		7	3.4
52	0		8	0
53	0		9	0
54			10	0
55	0.1		11	0
56	0.5		12	0
57	0.5		13	3.4
58			14	0
59	0		15	0
		1		

		CCDC	IRCUIT
PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
16	3.4	IC3102	
17	3.4	1	15.0
18	5.6	2	7.2
19	0	3	0
20	0	4	11.7
21	0	5	1.7
22	0	6	1.8
P6	-	7	1.3
1	1.5		
		8	0
2	0	9	-9.1
3	0	10	-0.4
4	-9.8	11	-8.4
5	3.4	12	-0.4
6	3.4	13	0
7	3.4	14	-8.4
8	3.4	15	-8.5
9	0	16	6.0
10	3.4		
11	13.9	Q3101	
12	0	E	10.9
13	0	C	15.0
14	0	В	11.7
			11.7
15	0	TD0404	0.0
16	6.0	TP3101	6.0
17	6.0	TP3102	-8.5
18	6.0	TP3103	-8.4
19	6.0	TP3104	0
20	0	TP3105	-0.4
21	0	TP3106	-8.4
P9		TP3107	-0.4
1	3.4	TP3108	7.2
2	3.6	TP3110	0
3	3.3	TP3112	1.3
4	3.4	110112	1.0
5	0		
	3.4		
6	3.4		

TP7003

0.1

# CIRCUIT BOARD LAYOUT MAIN C.B.A. LSEP3003A1 (A) / LSEP3003B1 (B)



#### COMPARISON CHART OF MODELS & MARKS

MODEL	MAR
PV-DC2090 PV-DC2590	A B

#### NOTE

FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

#### NOTE

CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS. FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING, PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

#### NOTE

CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE <u>2A 63V</u> FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE <u>2A 63V</u>

#### IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED BY THE SIGN A HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

#### NOTE: MULTILAYER C.B.A.

THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

#### (COMPONENT SIDE)

D1010

D1011

D1012

D2001

D2012

D2013

R1001

G-2

G-3

G-2

C-4

F-3

F-3

G-2

R1037

R1041

R1042

R1044

R1046

R1048

R1049

G-2

G-2

G-2

G-2

G-1

F-2

G-1

R2010

R2011

R2017

R2019

R2022

R2023

R2030

F-3

F-3

G-3

C-3

C-3

G-3

G-3

R2056

R2057

R2060

R2061

R2067

R2068

R2069

LEADLESS COMPONENT PARTS LOCATION GUIDE MAIN C.B.A. C1018 G-2 R2070 R4027 E-1 C2006 F-3 C4004 F-2 T1002 F-1 Q1001 G-2 R1002 G-2 R1050 G-1 R2031 G-4 F-4 R2032 R2071 T1003 F-2 Q1002 F-1 R1005 F-1 R1051 G-1 G-4 E-4 R4028 E-1 C1019 G-1 C2026 G-3 C4005 E-2 Q1003 G-2 R1006 G-2 R1052 F-2 R2033 G-3 R2075 A-3 R4029 E-1 C1021 G-1 C2027 G-3 C4006 E-1 F2001 F-4 R2035 SW2001 F-4 Q1005 F-1 R1008 G-2 R1058 F-3 G-3 R2076 R4046 D-2 C1022 G-1 C2028 G-3 C4012 F-1 A-3 Q1011 G-2 R1018 G-2 R1059 F-3 R2037 G-4 R2077 A-3 R4048 D-2 C1023 G-1 C2029 C4017 E-2 SW2002 G-4 G-2 SW2003 G-3 Q1016 G-2 R1019 G-1 R1060 R2038 G-4 R2080 A-3 R4051 E-1 C1026 G-1 C2030 B-4 C4018 E-2 Q2003 F-4 R1020 G-2 R1061 G-3 R2049 G-3 R2081 A-3 R4056 F-2 C1030 G-1 C2034 E-4 C4019 E-2 SW2004 G-4 Q2004 F-3 R1021 G-1 R1063 E-1 R2050 G-3 R2704 R4061 C1032 G-2 C2035 C4029 SW2005 G-4 R1023 R1064 F-1 R2051 G-3 R4062 C1042 C3103 C-4 C4030 SW2006 E-4 Q2005 F-4 G-1 R3026 D-3 F-2 G-2 F-1 R1024 R2006 F-3 R2052 R3030 R4063 C1054 C3113 C-4 C4031 SW2007 D-4 Q7001 E-3 G-1 G-3 E-3 E-2 F-1 D-1 F-4 D1004 F-2 R1025 G-1 R2007 R2053 G-3 R3031 D-4 R4066 E-2 C1057 G-3 C3114 B-4 C4032 D-2 X2001 F-3 R1026 R2008 F-3 R2054 R3032 R4067 C1060 C3202 C-4 C4033 D1007 G-3 G-2 G-3 E-4 E-1 G-3 D-2 D1009 G-2 R1036 G-2 R2009 F-3 R2055 E-4 R3033 D-3 R7005 C1062 G-1 C3203 C-3 C4034 D-2

F-3

D-3

E-3

D-3

F-4

D-3

R7006 F-2

C1002 G-2

E-2

G-2

G-2

G-2

R7009

C1001

C1003

C1009

C1017

C1063 G-3

C2002 F-4

C2004 F-3

F-3

F-3

E-4

C1065

C2001

C2003

C2005

C3210 C-4

C3216 D-4

C3218 D-4

C3219 C-4

C4002 E-1

C4003 E-2

C3220

C4036

C7007

L1003

L1009

L3102

L3106

L4003

D-2

E-3

F-3

F-2

D-4

#### COMPONENT PARTS LOCATION GUIDE

AAIN C.B.A.

MAIN		
TRANS	SISTOR	
Q1001	G-2	
Q1002	F-1	
Q1003	G-2	
Q1005	E-1	
Q1011	G-2	
Q1016	G-2	
Q2003	F-4	
Q2004	F-3	
Q2005	E-4	
Q7001	E-3	

MAIN		
10	C	
IC1004	G-3	
IC2002	F-4	
IC2004	A-3	
IC2006	C-3	
IC3001	B-3	
IC3103	C-4	
IC3201	D-3	
IC4003	D-3	
IC7001	E-3	

MAIN					
CONNECTOR					
P3	E-3				
P4	E-2				
TEST	POINT				
TP1001	A-1				
TP1002	D-1				
TP1007	C-4				
TP3001	D-3				
TP3002	B-3				
TP3201	C-4				
-					

F-4

E-4

E-4

F-4

D-3

F-4

E-4

R3034

R3035

R3036

R3037

R3038

R3039

R3202

#### MAIN C.B.A. LSEP3003A1 (A) / LSEP3003B1 (B) MAIN C.B.A. NOTE: MULTILAYER C.B.A. CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS MAIN MAIN THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES. FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND REFER TO BEGINNING OF SCHEMATIC SECTION. PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST. FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH TRANSISTOR TEST POINT SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT. Q1006 TP1001 G-1 A-2 CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED. Q1007 TP1003 A-2 A-2 Q1008 TP1004 F-1 A-2 Q1009 TP1005 E-1 D-3 Q1010 TP1006 R-1 F-1 COMPARISON CHART Q1012 TP1008 TP7004 C-1 A-3 R2073 OF MODELS & MARKS Q1013 B-2 TP1009 C-1 MODEL MARK (FOIL SIDE) 0 Q1014 TP1010 F-1 D-2 ₹ ₹R2041 R7012 { { @@ 1 @ { R7013 TP7014 T @ { } } 0 Q1015 F-1 TP1011 C-3 PV-DC2090 Α F<del>#</del>• Q2001 TP2202 B-3 G-3 IC3104 PV-DC2590 В Q2002 TP3003 C-3 D-3 TP7007 0 Q2006 A-3 TP3004 E-3 م۸۸ IC7003 ₹R3201 20 R3002 R3043 SC3005 Q2007 TP3005 A-3 E-3 TP3014 TP3014 IC7002 R3052 Q2008 TP3006 F-3 A-3 Q2009 G-2 TP3007 E-4 ØR3024 5 R3045---3 Q2010 TP3008 F-2 E-4 R4001 **\*** Q4001 Q2011 TP3009 E-3 F-3 FP3004 8 TP3009 Q2012 B-3 TP3010 E-3 Q3102 TP3012 F-3 F-4 Q4001 TP3013 D-3 E-3 W-R4064 C20143 04002 TP3014 D-3 E-3 Q4003 C-2 TP3015 F-3 • P6 Q4004 D-2 TP3016 G-3 R2012 Q2010 Q2009 Q4005 TP4001 F-2 C-2 TP4002 D-2 R4047 1 TP4003 IC1001 A-2 C-2 2 IC1002 TP4004 C-1 A-3 C4021 \$ \$C4024 \ R4040 \ R4045 IC2001 TP4005 B-4 C-1 **6**4005 TP4006 IC2003 B-3 D-1 IC2005 TP4007 D-1 B-3 IC2007 TP7001 G-2 B-3 Ø<sub>TP4001</sub> TP7002 IC3104 E-4 C-2 IC1001 R4068 TP1006 IC4001 C-2 TP7003 D-3 R1057 IC4002 E-3 TP7004 D-4 **⊢** •₩• •0• 6 IC4004 TP7005 Q1014 C-3 D-2 IC7002 TP7006 C-3 D-4 ₩ TP4007 IC7003 TP7007 0 C-3 D-3 D1006 CONNE TP7008 CTOR D-4 P1 F-4 TP7009 C-3 P2 TP7010 D-4 C-4 P5 B-4 TP7011 C-4 **LSJB3003** P6 TP7012 G-2 D-4 P7 TP7013 B-4 C-3 D G P9 TP7014 C-4 TP7015 D-4 (FOIL SIDE) LEADLESS COMPONENT PARTS LOCATION GUIDE MAIN C.B.A. C3204 E-4 C4015 C-2 Q1006 A-2 Q4002 D-3 D3001 G-3 R1034 A-1 R2005 C-3 R2046 B-3 R3006 G-3 R3052 D-3 R4030 C-1 R7003 C-3 C1014 B-2 C1045 B-2 C2012 G-3 C3003 F-3 L1005 B-2 Q1007 A-2 Q4003 C-2 D4001 E-2 R1035 A-1 R2012 F-2 R2047 B-3 R3008 F-3 R3053 F-3 R4031 C-1 R7004 C-3 C1015 A-2 C1046 B-2 C2013 G-4 C3004 G-4 C3205 E-3 C4016 D-2 L1006 B-3 Q1008 F-1 Q4004 D-2 R1003 A-2 R1038 B-1 R2013 B-4 R2048 B-4 R3009 F-3 R3054 F-4 R4032 D-1 R7007 C-2 C1016 B-2 C1047 B-2 C2014 E-3 C3005 G-3 C3206 E-3 C4021 E-2 L1007 R-1 R1007 A-2 R2014 C-3 R3010 R3201 R4037 C1048 C2015 E-3 C3006 C3207 C4022 Q1009 E-1 Q4005 R1039 R2058 G-2 F-3 R7008 C1020 B-1 F-4 D-4 E-2 L1008 E-2 B-2 E-3 D-1 C-2 B-3 B-2 Q1010 B-1 D1001 R1009 R1040 R2015 C-4 R2059 R3011 F-3 R3203 R4040 F-2 R7010 C1024 C1049 C2016 C3007 F-3 C3208 E-3 C4023 L1010 B-2 A-2 B-1 F-2 E-3 C-3 A-1 B-3 G-2 E-2 B-3 R1010 R3012 F-3 R3204 R4041 F-2 C1025 A-1 C1050 C2017 G-2 C3008 F-3 C4024 F-2 Q1012 A-3 D1002 B-2 A-2 R1043 B-1 R2016 B-3 R2062 A-4 D-4 R7011 C-3 B-1 C3209 F-4 1 2002 G-3 Q1013 B-2 D1003 B-2 R1011 A-2 R1045 B-2 R2018 E-3 R2063 A-3 R3013 F-3 R4001 D-3 R4044 E-2 R7012 C-4 C1027 B-1 C1051 C-2 C2018 G-2 C3010 F-4 C3211 E-3 C4025 D-2 L2004 G-1 Q1014 F-1 D1005 B-2 R1012 A-2 R1047 B-2 R2020 F-3 R2064 A-3 R3014 F-3 R4002 D-2 R4045 F-2 R7013 C-4 C1028 A-1 C1052 B-2 C2019 G-2 C3011 E-3 C3212 E-4 C4026 D-2 L2005 F-3 D1006 R1013 B-2 R1053 A-1 R2021 R2065 R3015 F-3 R4003 C-2 R4047 C-2 R7014 C-3 C1053 C2020 G-2 C4027 Q1015 F-1 C-1 F-3 A-3 C1029 A-2 C3012 F-3 C3213 L3001 B-3 F-4 D-2 F-3 Q2001 B-3 D1008 B-2 R1014 A-2 R1054 G-1 R2024 A-3 R2066 G-2 R3016 F-2 R4004 D-2 R4049 D-2 R7015 C-3 C1031 C1056 B-2 C2021 A-4 C3028 F-3 C3214 D-4 C4028 D-2 L3103 F-4 R4012 E-2 C4035 R4050 D-2 C2022 A-3 Q2002 C-3 D1013 B-1 R1015 A-2 R1055 A-3 R2025 A-3 R2072 A-3 R3018 F-3 R7016 E-2 C1033 A-3 C1061 A-1 C3029 G-3 C3215 D-4 D-3 L3201 D-4 Q2006 D2002 A-4 R1016 A-2 R1056 B-3 R2026 F-3 R2073 B-4 R3020 F-3 R4014 E-2 R4057 E-3 R7017 B-2 C1034 B-2 C1063 B-3 C2023 A-4 C3030 G-3 C3217 D-3 C7001 C-3 L3202 D-4 A-3 Q2007 D2003 R1017 B-2 R1057 F-1 R2027 E-3 R2078 E-3 R3021 F-3 R4015 E-2 R4058 D-3 C1005 F-1 C1036 B-2 C1064 B-3 C2024 A-3 C3031 F-3 C4001 D-2 C7002 C-4 L3203 D-3 A-3 A-4 D2004 R1062 C-2 R2028 F-3 R2079 R3024 R4016 D-2 R4059 D-2 C1037 C1067 C2025 A-4 C3032 F-3 C4007 C-1 C7003 C-4 I 4001 R1022 B-1 F-3 F-3 C1006 F-1 B-2 D-3 Q2008 A-3 A-3 A-2 R1027 R1065 R2029 R3025 R4017 R4060 C1007 C1038 C1068 C2031 C3033 C4008 C7004 L4002 Q2009 G-2 D2007 D-3 A-2 B-1 G-2 R2082 G-3 D-3 D-2 D-2 E-1 B-1 F-3 F-3 E-3 C-2 C-1 Q2010 F-2 D2008 C-3 R1028 A-2 R1066 C-1 R2036 A-4 R3001 G-3 R3043 G-3 R4018 D-2 R4064 D-3 C1008 A-3 C1039 B-2 C2007 G-3 C2032 A-3 C3105 F-4 C4009 E-2 C7005 D-4 L4004 C-1 D2009 R1029 R2001 A-4 R2039 R3002 G-3 R3044 R4020 D-2 R4065 D-2 C1010 C1040 C2008 C2033 C3117 E-4 C4010 E-2 C7006 L4005 Q2011 E-3 G-1 A-1 A-4 G-3 A-2 B-1 G-3 A-3 D-3 E-2 D2010 R1030 R2002 A-4 R2040 R3003 R3045 R4021 R4068 C1011 C1041 C2009 C2036 C4011 C7008 Q2012 B-3 A-4 G-3 D-2 C-1 A-2 B-3 B-3 D-3 C3118 E-3 C-2 T1001 D-2 Q3102 F-3 D2011 G-1 R1032 A-2 R2003 A-4 R2041 A-4 R3004 F-3 R3046 D-3 R4022 E-2 R7001 C-4 C1012 B-2 C1043 R-1 C2010 G-3C3001 F-3 C3119 F-3 C4013 D-3 L1001 F-1 Q4001 D-3 D2017 F-2 R1033 A-2 R2004 A-4 R2042 A-4 R3005 G-4 R3051 G-3 R4026 D-2 R7002 C-4 C1013 A-2 C1044 C-2 C2011 G-4 C3002 G-3 C3201 E-4 C4014 C-2 L1004 B-2

COMPONENT PARTS LOCATION GUIDE

## CCD C.B.A. LSEP3004A1

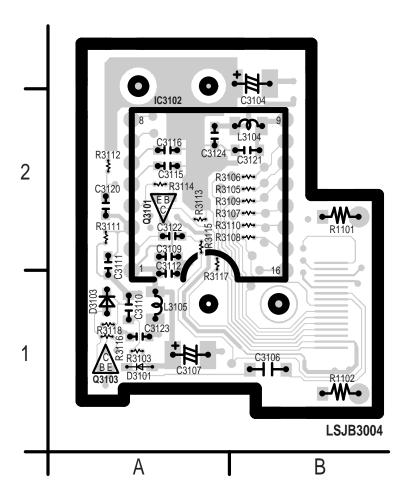
NOTE: FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

#### NOTE: MULTILAYER C.B.A.

THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

#### NOTE:

CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED. PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.



#### **COMPONENT PARTS** LOCATION GUIDE CCD C.B.A.

CCD					
TRANS	SISTOR				
Q3101	A-2				
Q3103	A-1				
IC					
IC3102	A-2				

LEADLESS COMPONENT PARTS LOCATION GUIDE

CCD C.	B.A.					
Q3101	A-2	R3111	A-2	C3111	A-1	
Q3103	A-1	R3112	A-2	C3112	A-2	
D3101	A-1	R3113	A-2	C3120	A-2	
D3103	A-1	R3114	A-2	C3121	B-2	
R1101	B-2	R3115	A-2	C3122	A-2	
R1102	B-1	R3116	A-1	C3123	A-1	
R3103	A-1	R3117	A-1	C3124	A-2	
R3105	A-2	R3118	A-1	L3104	B-2	
R3106	A-2	C3104	B-2	L3105	A-1	
R3107	A-2	C3106	B-1	C3115	A-2	
R3108	A-2	C3107	A-1	C3116	A-2	
R3109	A-2	C3109	A-2			
R3110	A-2	C3110	A-1			

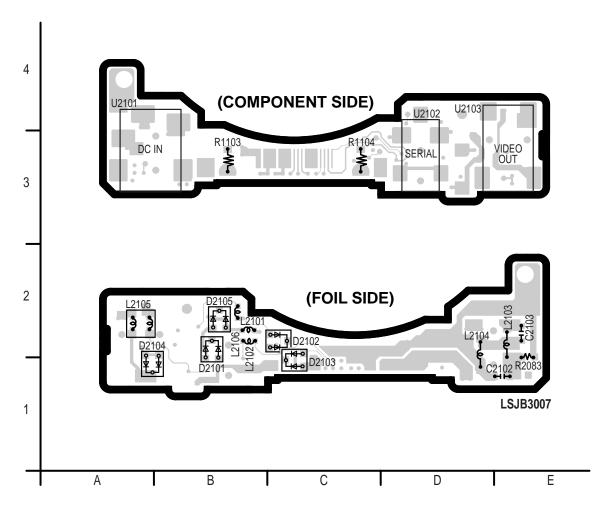
# JACK C.B.A. LSEP3007A1

FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

#### NOTE: MULTILAYER C.B.A.

THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

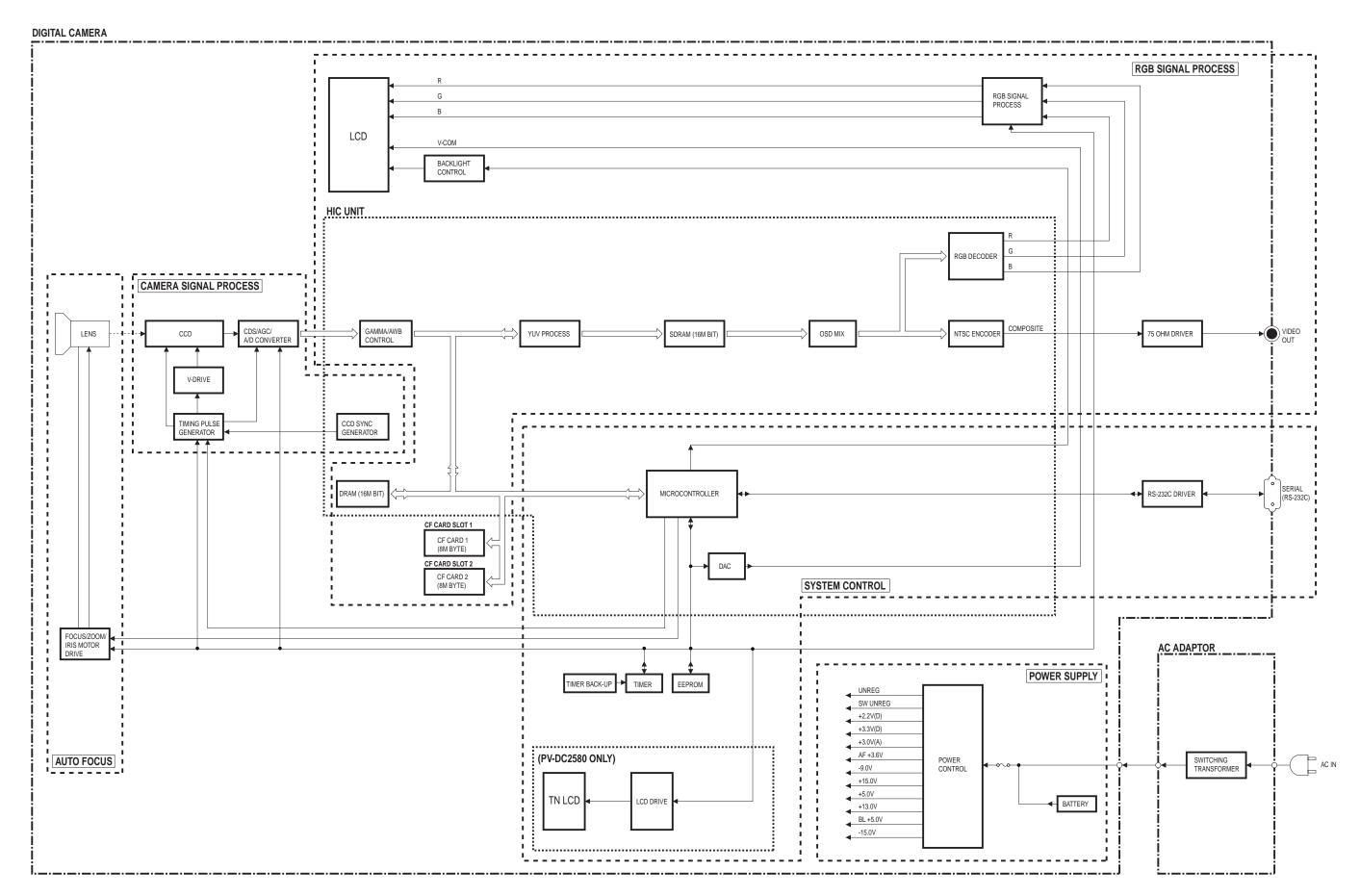
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED. PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.



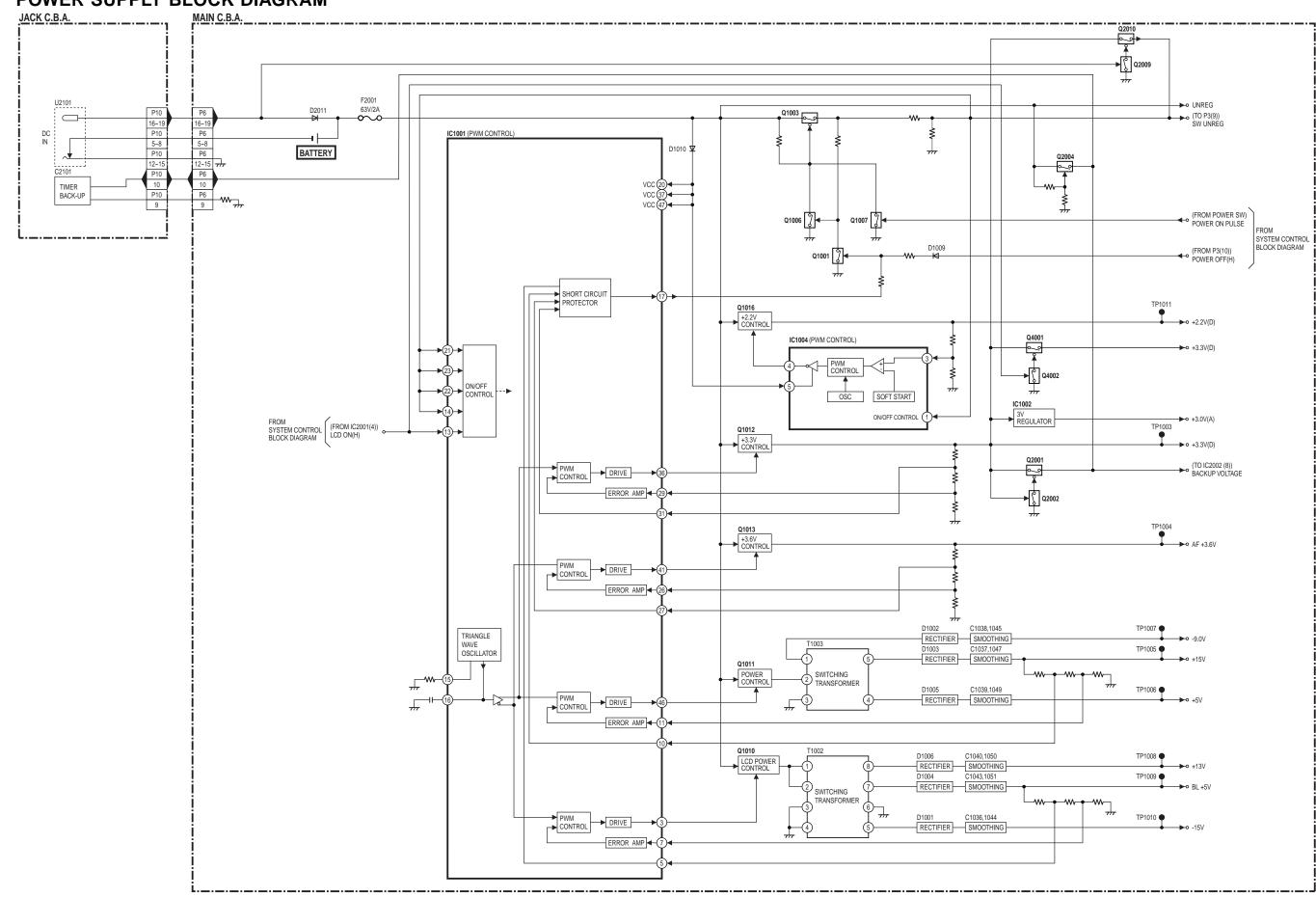
# LEADLESS COMPONENT PARTS LOCATION GUIDE

		-	_		
JACK C	.B.A.				
C2102	E-1	L2101	B-2	R1104	C-3
C2103	E-2	L2102	B-2	R2083	E-1
D2101	B-1	L2103	E-2	U2101	A-4
D2102	C-2	L2104	D-2	U2102	D-4
D2103	C-1	L2105	A-2	U2103	D-4
D2104	A-2	L2106	B-2		
D2105	B-2	R1103	B-3		

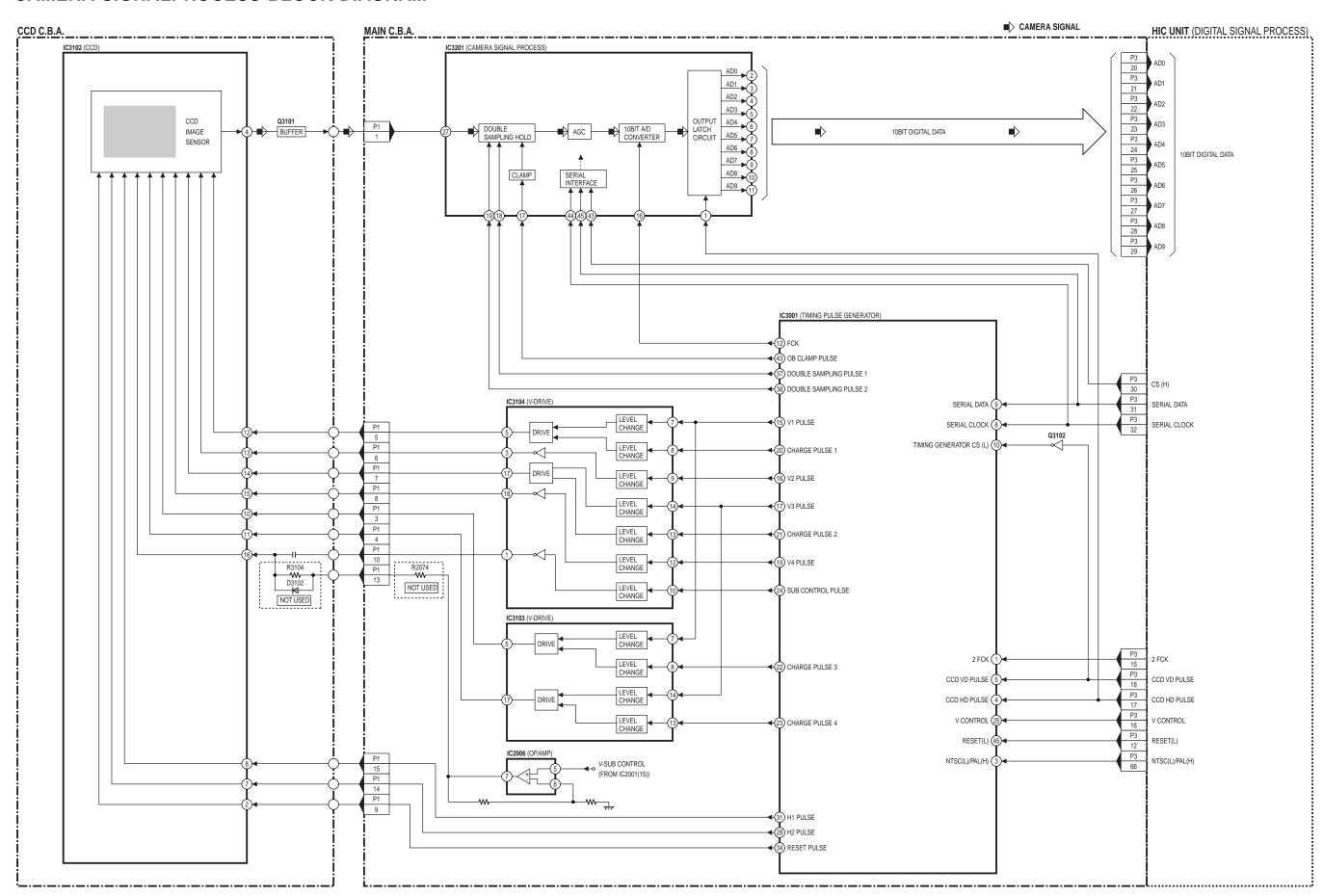
# BLOCK DIAGRAMS OVERALL BLOCK DIAGRAM



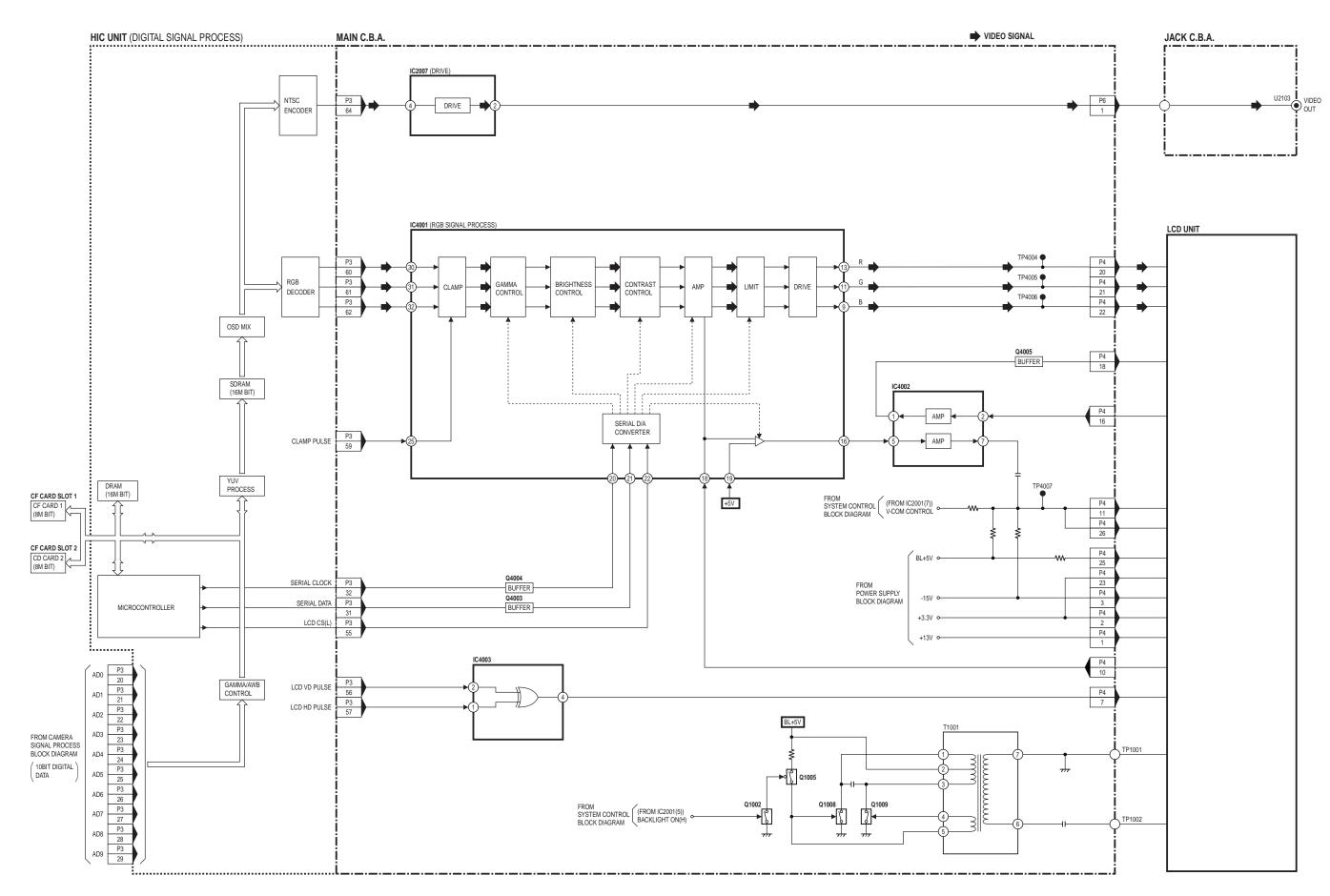
# **POWER SUPPLY BLOCK DIAGRAM**



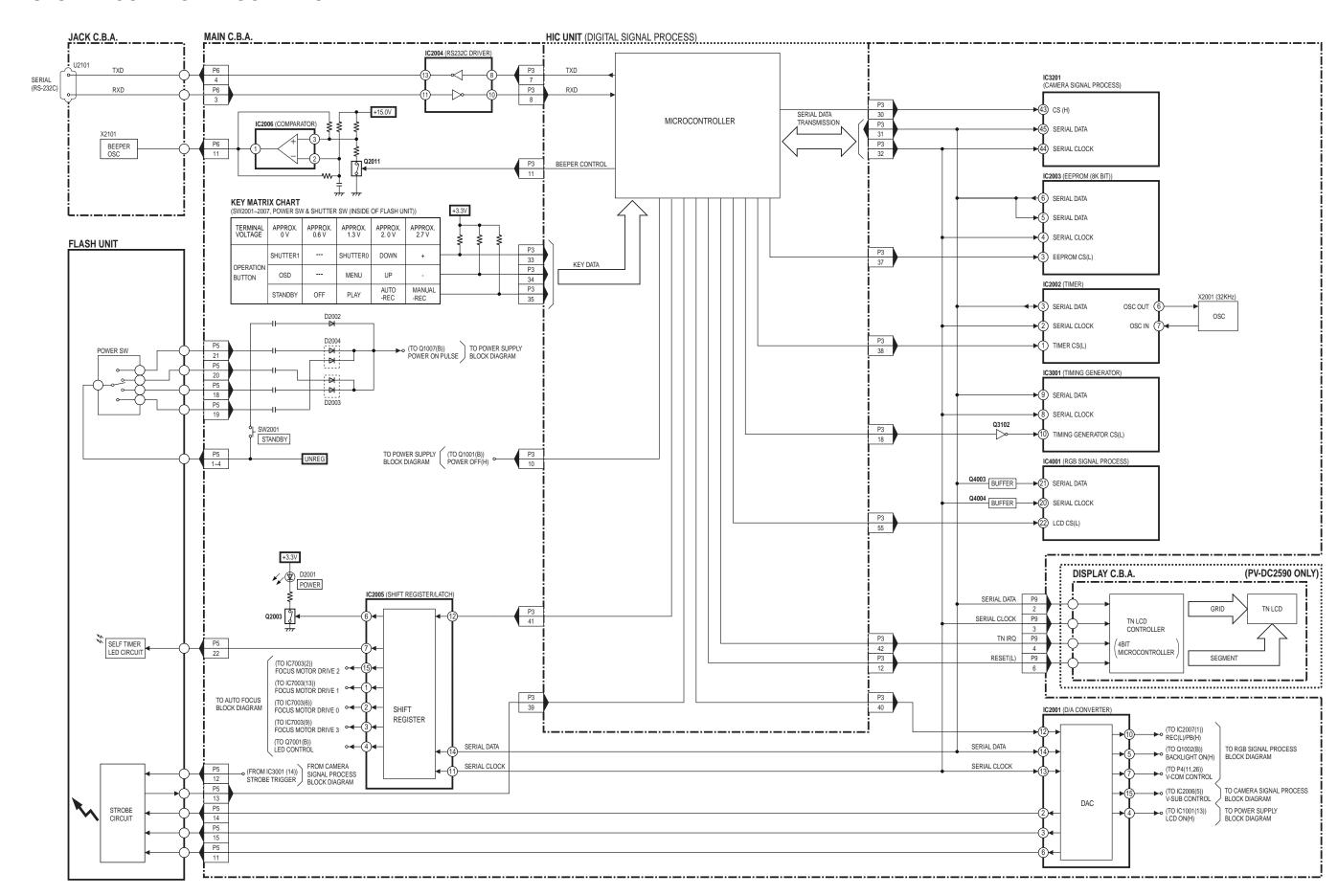
## CAMERA SIGNALPROCESS BLOCK DIAGRAM



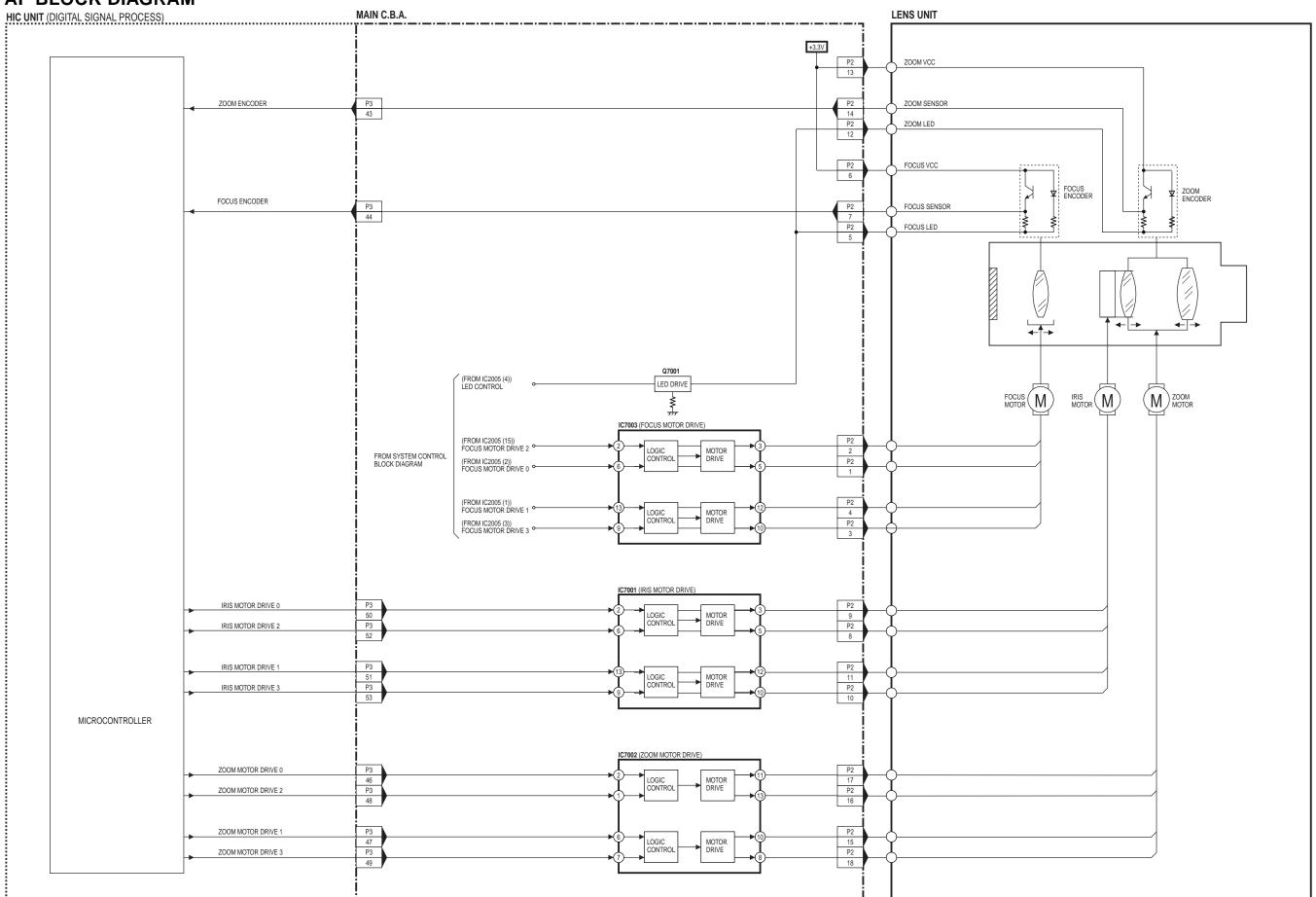
# **RGB SIGNAL PROCESS BLOCK DIAGRAM**



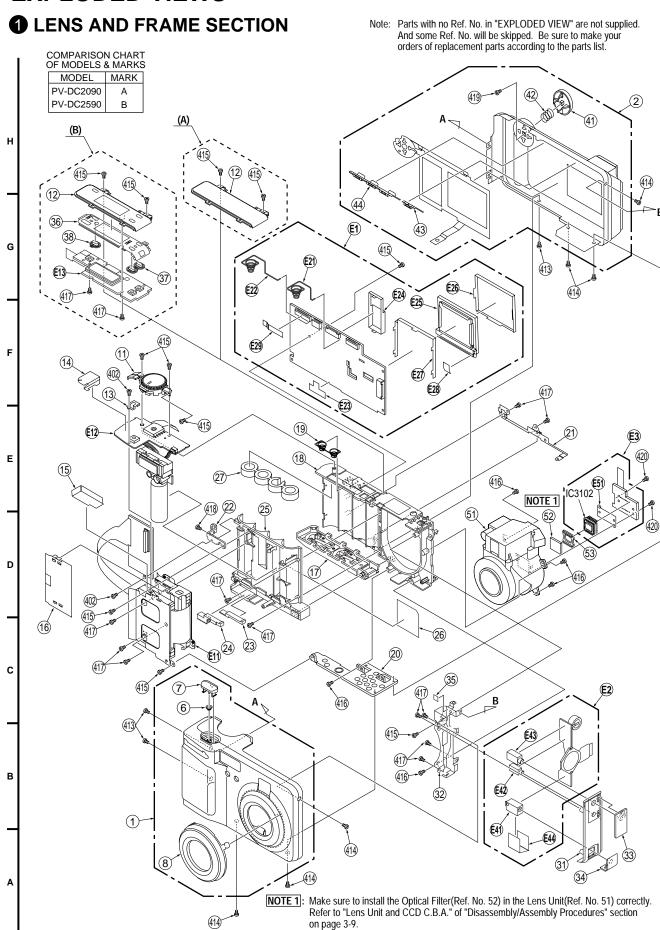
### SYSTEM CONTROL BLOCK DIAGRAM



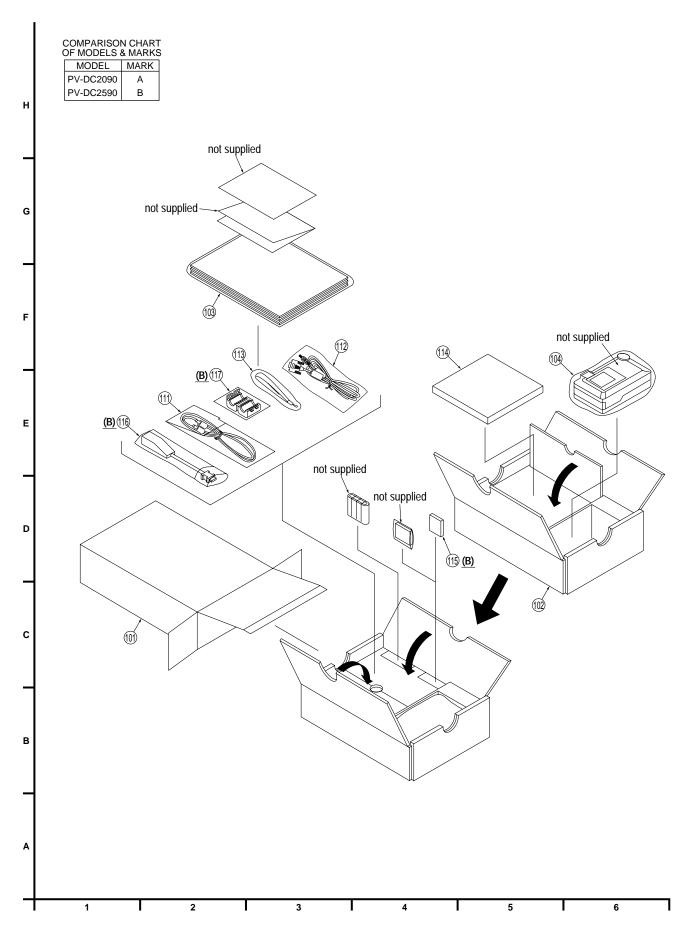
# **AF BLOCK DIAGRAM**



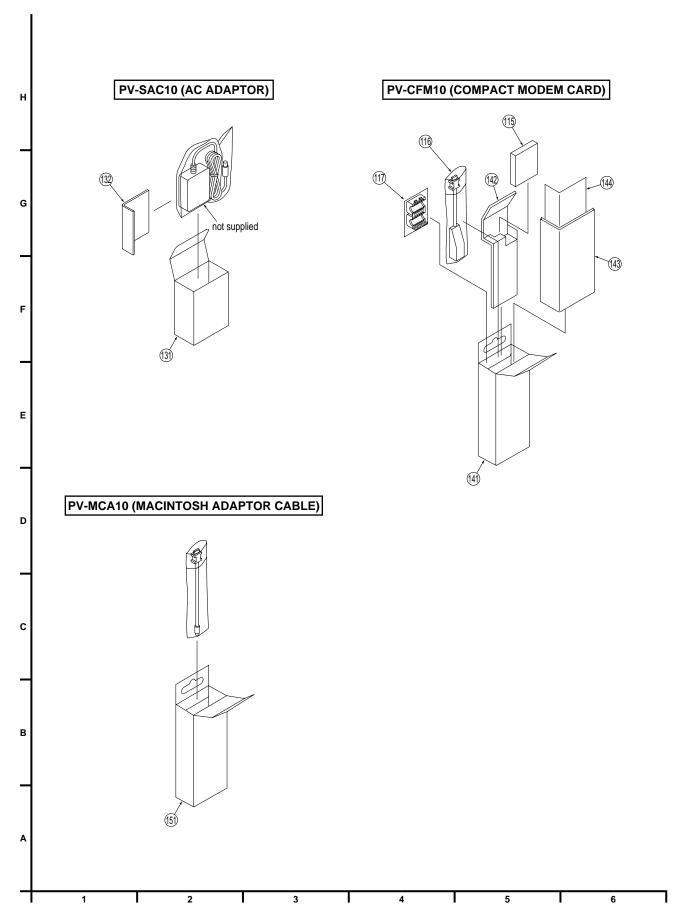
# **EXPLODED VIEWS**



# **2** PACKING PARTS AND ACCESSORIES SECTION



# **3** OPTIONAL ACCESSORIES SECTION



# REPLACEMENT PARTS LISTS

#### BEFORE REPLACING PARTS, READ THE FOLLOWING:

#### REPLACEMENT NOTES

#### **General Notes**

1. Use only original replacement parts: To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.

2. IMPORTANT SAFETY NOTICE

Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.

3. SPECIAL NOTE All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DE-VICES" section of this service manual.

4. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.

5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.

6. Parts with mark "MKA" in the Remarks column are supplied from MKA factory. Parts with mark "VED" in the Remarks column are supplied from VED. Others are supplied from MKE.

#### **Mechanical Replacement Notes**

1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.

#### **Electrical Replacement Notes**

- 1. Item numbers with capital letter E (Example: E1, E2,...) in the Ref. No. column are shown in the exploded views. The E item numbers are also printed on the same page at the top of the column.
- The parts with "■" mark are supplied individually or as a unit.
- Unless otherwise specified:

All resistors are in ohms, 1/4W, +/-5%, carbon,

K = 1,000 ohm, M = 1,000 kohm.

All capacitors are in microfarads, P = micromicrofarad, +/-10%.

All coils are in microhenries, M = 1,000 microhenry, +/-10%.

4. Abbreviation

RTL: Retention Time Limited

This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.

NR: Non Repairable Board Ass'v

MGF CHIP: Metal Glaze Film Chip

C CHIP: Ceramic Chip

COMPLX CMP: Complex Component W FLMPRF: Wirewound Flameproof

C.B.A.: Circuit Board Assembly

P.C.B.: Printed Circuit Board

E.S.D.: Electrostatically Sensitive Devices

SERVICE OF CHIP PÁRTS

When servicing chip parts, please use a soldering iron of less than 30 watts. Refer to "IC, TRANSISTOR AND CHIP PART INFORMATION" page.

- 6. The parts with "•" are 0 ohm resistor. When replacing, a wire can be substituted for a 0 ohm resistor.
- IC2003 replacement note:

When replacing this IC, be sure to write the initial data with PC-EVR Software.

#### **COMPARISON CHART OF MODELS & MARKS**

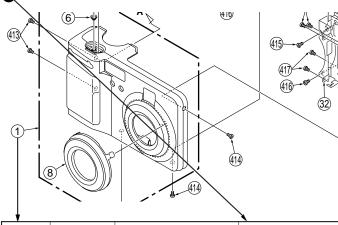
MODEL	MARK
PV-DC2090	Α
PV-DC2590	В

# MECHANICAL REPLACEMENT PARTS LIST

<The complete Exploded Views are shown in this manual.>

#### **EXPLODED VIEWS**

#### **1** LENS AND FRAME SECTION



Ref. No.	Part No.	Part Name	Remarks
		MECHANISM PARTS ON CI	212244
	-	WECHANISM PARTS ON CI	
1	-	EDON'T CACE UNIT ADC DECTN	(Section No.)
1	1 CVE0200	FRONT CASE UNIT, ABS RESIN	1
	LSYF0299	( A )	1
2	LSYF0300	( B ) REAR CASE UNIT,ABS RESIN	1
6	LSYF0306	RETURN SPRING F	1
7	LSMB0171 LSGU0096	SHUTTER BUTTON	1
8	LSGK0037	DECORATION COVER	1
11	LSYF0311	MODE DIAL UNIT	1
12	LSTF0311	TOP COVER UNIT	1
14	LSYF0312	( A )	1
	LSYF0314	( B )	1
13	LSSC0255	SHUTTER EARTH PLATE, STEEL	1
14	LSMZ0218	OPERATION P.C.B. BARRIER	1
15	LSMZ0218	OPERATION P.C.B. BARRIER	1
16	LSXA0284	CF GUIDE PLATE UNIT, STAINLESS	1
17	LSYF0309	BATTERY COVER UNIT	1
18	LSMK0013	MAIN FRAME	1
19	LSMB0161	BATTERY TERMINAL	1
20	LSMA0319	TRIPOD FRAME	1
21	LSSC0227	BATTERY EARTH PLATE, STEEL	1
22	LSMA0317	STRAP HOLDER	1
23	LSGT0025	CF KNOB	1
24	LSGT0026	CF KNOB	1
25	LSMK0014	BATTERY FRAME	1
26	LSQL0737	BATTERY LABEL	1
27	LSMF0032	BATTERY CUSHION	1
31	LSGP0157	SIDE COVER	1
32	LSMA0318	FIXING ANGLE	1
33	LSKF0237	JACK COVER A	1
34	LSKF0238	JACK COVER B	1
35	LSMZ0166	P.C.B. BARRIER	1
36		TOP EARTH PLATE C,STEEL	
	LSSC0248	( B )	1
37		TOP OPERATION BUTTON A	_
	LSGU0100	( B )	1
38		TOP OPERATION BUTTON B	
	LSGU0101	( B )	1
41	LSGU0097	CROSS BUTTON	1
42	LSMB0160	RETURN SPRING R	1
43	LSGL0311	REAR LED PANEL	1
44	LSGU0098	REAR OPERATION BUTTON	1
51	LSXN0004	ZOOM LENS UNIT	1
52	LSFL0014	OPTICAL FILTER	1
53	LSMG0048	CCD CUSHION, RUBBER	1

Ref. No.	Part No.	Part Name	Remarks
101		PACKING CASE, PAPER	
	LSPG0605	(A)	2
	LSPG0606	( B )	2
102	LSPN0112	PAD	2
103		FAN BAG	
	LSQF0132	( A )	2
	LSQF0133	( B )	2
104	LSPF0047	BAG, POLYETHYLENE	2
111	LSJA0238	VIDEO CABLE W/PLUG	2
112	LSJA0236	PC CONNECTION CABLE W/PLUG	2
113 114	LSFC0010 LSFT0163	STRAP,NYLON SOFTWARE CD-ROM	2
115	L3F10103	COMPACT MODEM CARD	
113	LSFA0010	(B)	2
116	ESTAGGE	CF MODEM CABLE W/PLUG	
	LSJA0244	( B )	2
117		FERRITE CORE	
	LSLP0059	(B)	2
		SCREWS AND WASHERS	
-			
402	XQN14+B2	SCREW, STEEL	1
413	XQN16+C3FXK	SCREW, STEEL	1
414	XQN16+C3FN	SCREW, STEEL	1
415	XQN14+BJ5FN	SCREW, STEEL	1
416	XQN16+BJ6FN	SCREW, STEEL	1
417	XQN14+BJ3	SCREW, STEEL	1
418	XQS14+AJ3	SCREW, STEEL	1
419	LSHD0043	SCREW, STEEL	1
420	XQN16+CJ6	SCREW, STEEL	1
		OPTIONAL ACCESSORIES	PARIS
	DV CAC40	AC ADARTOR	
	PV-SAC10	AC ADAPTOR	
131	LSPG0639	PACKING CASE, PAPER	3
132	LSQT0127	INSTRUCTION BOOK	3
132	LSQIVILI	INSTRUCTION BOOK	3
	PV-CFM10	COMPACT MODEM CARD	
115	LSFA0010	COMPACT MODEM CARD	3
116	LSJA0244	CF MODEM CABLE W/PLUG	3
117	LSLP0059	FERRITE CORE	3
141	LSPG0640	PACKING CASE, PAPER	3
142	LSPN0120	PAD	3
143	LSQT0131	INSTRUCTION BOOK	3
144	LSQC0059	CF MODEM SHEET	3
	PV-MCA10	MACINTOSH ADAPTOR CA	RLE
151	I CDCCC11	DACKTHE CASE BIRES	
151	LSPG0641	PACKING CASE, PAPER	3
	+		
	+		
	+	SERVICE FIXTURE AND TO	OI S
	+	SERVICE FIXTURE AND TO	,OLO
	I SHARRAT 7	EYTENSTON CARLE 1	
	LSUA0017	EXTENSION CABLE-1	
	LSUA0021	EXTENSION CABLE-2	
	LSUA0022	EXTENSION CABLE-3	
		EXTENSION CABLE-4	
	LSUA0023	IACK C R A	
	LSEP3007A1	JACK C.B.A.	
	LSEP3007A1 ERG5SJ102	RESISTOR +-5% 5W 1K	
	LSEP3007A1 ERG5SJ102 VFKS003A	RESISTOR +-5% 5W 1K GRAY SCALE CHART	
	LSEP3007A1 ERG5SJ102 VFKS003A VFKW0116	RESISTOR +-5% 5W 1K GRAY SCALE CHART COLOR CHIP CHART	
	LSEP3007A1 ERG5SJ102 VFKS003A	RESISTOR +-5% 5W 1K GRAY SCALE CHART COLOR CHIP CHART INFINITY LENS	VED
	LSEP3007A1 ERGSSJ102 VFKS003A VFKW0116 VFK1164TCM02	RESISTOR +-5% 5W 1K GRAY SCALE CHART COLOR CHIP CHART INFINITY LENS (WITH FOCUS CHART)	
	LSEP3007A1 ERG5SJ102 VFKS003A VFKW0116 VFK1164TCM02	RESISTOR +-5% 5W 1K GRAY SCALE CHART COLOR CHIP CHART INFINITY LENS (WITH FOCUS CHART) LIGHT BOX	VED
	LSEP3007A1 ERGSSJ102 VFKS003A VFKW0116 VFK1164TCM02	RESISTOR +-5% 5W 1K GRAY SCALE CHART COLOR CHIP CHART INFINITY LENS (WITH FOCUS CHART)	
	LSEP3007A1 ERG5SJ102 VFKS003A VFKW0116 VFK1164TCM02	RESISTOR +-5% 5W 1K GRAY SCALE CHART COLOR CHIP CHART INFINITY LENS (WITH FOCUS CHART) LIGHT BOX	VED

# ELECTRICAL REPLACEMENT PARTS LIST

(E1, E2, E3)

Ref. No.	Part No.	Part Name	Remarks
		PRINTED CIRCUIT BOARD ASS	EMPLV
E1	LSEP3003A1	MAIN C.B.A.	■ E.S.D. RTL
LI	( A )	MAIN C.B.A.	L.J.D. KIL
E1	LSEP3003B1	MAIN C.B.A.	■ E.S.D. RTL
	( B )	PARTY C.D.A.	<b>L</b> 13.0. KIL
E2	LSEP3007A1	JACK C.B.A.	
E3	LSEP3004A1	CCD C.B.A.	■ E.S.D. RTL
		MAIN C.B.A.	
			_
		INTEGRATED CIRCUITS	
IC1001	BA9737KV	IC, LINEAR PWM CONTROL	
IC1002	TK11230BMCL	IC, LINEAR 3V REGULATOR	
IC1004	S-8521F18MC	IC, LINEAR PWM CONTROL	
IC2001	M62367GP	IC, LINEAR D/A CONVERTER	
IC2002	RS5C314-E2	IC, LINEAR TIMER	
IC2003	S-29453AFE	IC, 8K EEP ROM	E.S.D. *NOTE
IC2004	UPD4721GS	IC, RS232C DRIVER	
IC2004 IC2005	TC74VHC595FT	IC, CMOS STANDARD LOGIC SHIFT	F S D
	/CI TTIICJ93F1	REGISTER/LATCH	2.3.0.
IC2006	BA10358FV	IC, LINEAR OP AMP	
IC2006	TK15405MTL	IC, LINEAR DRIVE	
IC2007 IC3001	MN5285	,	E C D
TCAMT	PHYJCOJ	IC, CMOS STANDARD LOGIC TIMING	E.S.D.
IC3103	MN3112SA-E1	PULSE GENERATOR IC, CMOS STANDARD LOGIC CCD V	E.S.D.
		DRIVE	
IC3104	MN3112SA-E1	IC, CMOS STANDARD LOGIC CCD V	E.S.D.
		DRIVE	
IC3201	HD49323AF-01	IC, CMOS STANDARD LOGIC CAMERA SIGNAL PROCESS	E.S.D.
IC4001	AN2535FBQ	IC, LINEAR RGB SIGNAL PROCESS	
IC4002	TA75W558FU	IC, LINEAR AMP	
IC4003	TC7S86FU	IC, CMOS STANDARD LOGIC	E.S.D.
	7.0.00010	SWITCHING	2.3.5.
IC7001	LB1836M	IC, LINEAR MOTOR DRIVE	
IC7001 IC7002	LB1837MLTEL3	IC, LINEAR MOTOR DRIVE	
IC7002	LB1836M	IC, LINEAR MOTOR DRIVE	
10,002	LDIOJON	IC, EINEAR MOTOR DRIVE	
		TRANSISTORS	
Q1001	2SC4617(T,L)	CHIP	
	OR 2SD2216	CHIP	
	OR 2SD2216J	CHIP	
Q1002	DTC144EE	CHIP	
	OR UN9213	CHIP	
	OR UN9213J	CHIP	
Q1003	2SB1462	CHIP	
-	OR 2SB1462J	CHIP	
01005	DTA124EE	CHIP	
	OR UN9112	CHIP	
	OR UN9112J	CHIP	
Q1006	DTC144EE	CHIP	
<del></del>	OR UN9213	CHIP	
	OR UN9213J	CHIP	
01007	DTC144EE	CHIP	
Z2001	OR UN9213	CHIP	
	OR UN9213J	CHIP	
01008	2SD1119(R)	CHIP	
42000	OR 2SD2150T100R	CHIP	
Q1009	2SD1119(R)	CHIP	
41003	OR 2SD2150T100R	CHIP	
Q1010	CPH3110	CHIP	
	CPH3110	CHIP	
Q1011 01012			
Q1012	CPH3110	CHIP	
Q1013	CPH3110	CHIP	
Q1016	2SB970(R)	CHIP	
Q2001	2SB1462	CHIP	
	OR 2SB1462J	CHIP	
NOTE	14/1		D 4 1

Ref. No.	Part No.	Part Name	Remarks
Q2002	DTC144EE	CHIP	
	OR UN9213	CHIP	
	OR UN9213J	CHIP	
Q2003	DTC144EE	CHIP	
	OR UN9213	CHIP	
Q2004	OR UN9213J 2SC4081T106R	CHIP	
Q2004	OR 2SD1819A	CHIP	
Q2005	2SC4617(R)	CHIP	
Q2003	OR 2SD2216	CHIP	
	OR 2SD2216J	CHIP	
Q2006	3LN01M	FET CHIP	
Q2007	3LN01M	FET CHIP	
Q2008	3LN01M	FET CHIP	
Q2009	DTC144WE	CHIP	
	OR UN921E	CHIP	
	OR UN921EJ	CHIP	
Q2010	DTA144EE	CHIP	
	OR UN9113	CHIP	
	OR UN9113J	CHIP	
Q2011	DTC144EE	CHIP	
	OR UN9213	CHIP	
02012	OR UN9213J	CHIP	
Q2012 02102	3LN01M	FET CHIP	
Q3102	DTC144EE	CHIP	
	OR UN9213	CHIP	
Q4001	OR UN9213J 2SB1462	CHIP	
₹100±	OR 2SB1462J	CHIP	
04002	2SC4081T106R	CHIP	
, <u>.</u>	OR 2SD1819A	CHIP	
Q4003	2SB1462(R)	CHIP	
Q4004	2SB1462(R)	CHIP	
Q4005	2SC3931(C)	CHIP	
Q7001	2SC4081T106R	CHIP	
	OR 2SD1819A	CHIP	
		DIODES	
D1001	MA111	CHIP	
D1001	OR 1SS355TE-17	CHIP	
D1002	MA111	CHIP	
	OR 1SS355TE-17	CHIP	
D1003	MA785	CHIP	
D1004	MA3XD1100L	CHIP	
D1005	MA111	CHIP	
	OR 1SS355TE-17	CHIP	
D1006	DAN202UT	CHIP	
	OR MA142WK	CHIP	
D1007	MA3XD1100L	CHIP	
D1008	MA3XD1100L	CHIP	
D1009	144111	CHIP	
	MA111		
	OR 1SS355TE-17	CHIP	
	OR 1SS355TE-17 MA784	CHIP	
D1011	OR 1SS355TE-17 MA784 MA784	CHIP CHIP	
D1011 D1012	OR 1SS355TE-17 MA784 MA784 MA8051-M	CHIP CHIP ZENER CHIP 5.1V	
D1011 D1012 D2001	OR 1SS355TE-17 MA784 MA784 MA8051-M LNJ306G5URA	CHIP CHIP ZENER CHIP LED CHIP S.1V	
D1011 D1012 D2001	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111	CHIP CHIP ZENER CHIP LED CHIP CHIP	
D1011 D1012 D2001 D2002	OR 1SS355TE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS355TE-17	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP	
D1011 D1012 D2001 D2002	OR 1SS355TE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS355TE-17 DAN222-T	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003	OR 1SS35STE-17 MA784 MA784 MA8851-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 DAN222-T OR MA132WK DAN222-T OR MA132WK	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008	OR 1SS35STE-17 MA784 MA784 MA8051-M LINJ306GSURA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK ERJ3GEYJ222V	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJZ2ZV SFPB-62V MA111	CHIP CHIP ZENER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2107	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK	CHIP CHIP ZENER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2107	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJZ2ZV SFPB-62V MA111	CHIP CHIP ZENER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2107	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK	CHIP CHIP ZENER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2107	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK	CHIP CHIP ZENER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2008 D2011 D2012 D2107 D4001	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK	CHIP CHIP ZENER CHIP ZENER CHIP S.1V LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2012 D2107 D4001	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK MA304	CHIP CHIP ZENER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2012 D2107 D4001 R1001 R1003	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK MA304 ERJ2GEJ473X	CHIP CHIP ZENER CHIP ZENER CHIP S.1V LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2107 D4001 R1001 R1003 R1005	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEVJ222V SFPB-62V MA111 MA3075WK MA304  ERJ2GEJ473X ERJ2GEJ473X	CHIP CHIP ZEMER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2017 D4001 R1001 R1003 R1005 R1006	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 DAN222-T OR MA132WK DAN222-T OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK MA304  ERJ2GEJ473X ERJ2GEJ473X ERJ2GEJ153X ERJ2GEJ332X	CHIP CHIP ZEMER CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1010 D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2011 D2012 D2107 D4001 R1001 R1003 R1005 R1006 R1007 R1008	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 OR MA132WK ENJ3GEJVJ222-T OR MA132WK ERJ3GEVJ222V MA111 MA3075WK MA304  ERJ2GEJ473X ERJ2GEJ163X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X	CHIP CHIP ZENER CHIP JENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	
D1011 D1012 D2001 D2002 D2003 D2004 D2008 D2010 D2010 D2012 D2017 D4001 R1001 R1003 R1005 R1006 R1007	OR 1SS35STE-17 MA784 MA784 MA8051-M LNJ306G5URA MA111 OR 1SS35STE-17 OR MA132WK ERJ3GEJ122-V OR MA132WK ERJ3GEYJ222V SFPB-62V MA111 MA3075WK MA304  ERJ2GEJ153X ERJ2GEJ153X ERJ2GEJ133X ERJ2GEJ103X ERJ2GEJ103X	CHIP CHIP ZENER CHIP LED CHIP CHIP CHIP CHIP CHIP CHIP CHIP CHIP	

\*NOTE: When replacing the Main/Camera C.B.A., be sure to write the data to EEPROM.

	Part No.	Part Nar	ne	Remarks
R1010	ERJ2RKF5602X	MGF CHIP +-1%	1/16W 56K	
R1011	ERJ2GEJ123X	MGF CHIP	1/16W 12K	
R1012	ERJ2GEJ183X	MGF CHIP	1/16W 18K	
R1013	ERJ2GEJ822X	MGF CHIP	1/16W 8.2K	
R1014	ERJ2GEJ221X	MGF CHIP	1/16W 220	
R1015	ERJ2GEJ221X	MGF CHIP	1/16W 220	
R1016	ERJ2GEJ221X	MGF CHIP	1/16W 220	
R1017	ERJ2GEJ221X	MGF CHIP	1/16W 220	
R1018	ERJ2GEJ822X	MGF CHIP	1/16W 8.2K	
R1019	ERJ2GEJ823X	MGF CHIP	1/16W 82K	
R1020	ERJ2GEJ184X	MGF CHIP	1/16W 180K	
R1021	ERJ2GEJ332X	MGF CHIP	1/16W 3.3K	
R1022	ERJ2GEJ332X	MGF CHIP	1/16W 3.3K	
R1023	ERJ2GEJ332X	MGF CHIP	1/16W 3.3K	
R1024 R1025	ERJ2GEJ272X ERJ2GEJ393X	MGF CHIP MGF CHIP	1/16W 2.7K 1/16W 39K	
R1026	ERJ2GEJ3333X	MGF CHIP	1/16W 220K	
R1027	ERJ2GEJ184X	MGF CHIP	1/16W 180K	
R1028	ERJ2GEJ394X	MGF CHIP	1/16W 390K	
R1029	ERJ2GEJ473X	MGF CHIP	1/16W 47K	
R1030	ERJ2GEJ820X	MGF CHIP	1/16W 82	
R1032	ERJ2RKF2201X	MGF CHIP +-1%	1/16W 2.2K	
R1033	ERJ2RKF2201X	MGF CHIP +-1%	1/16W 2.2K	
R1034	ERJ2GEJ822X	MGF CHIP	1/16W 8.2K	
R1035	ERJ2GEJ473X	MGF CHIP	1/16W 47K	
R1036	ERJ2RKF1502X	MGF CHIP +-1%	1/16W 15K	
R1037	ERJ2GEJ680X	MGF CHIP	1/16W 68	
R1038	ERJ2GEJ331X	MGF CHIP	1/16W 330	
R1039	ERJ3GEYJ560V	MGF CHIP	1/16W 56	
R1040	ERJ2RKF5101X	MGF CHIP +-1%	1/16W 5.1K	
R1041	ERJ2RKF2201X	MGF CHIP +-1%	1/16W 2.2K	
R1042	ERJ2RKF2201X	MGF CHIP +-1%	1/16W 2.2K	
R1043	ERJ2RKF2701X	MGF CHIP +-1%	1/16W 2.7K	
R1044	ERJ2RKF1802X	MGF CHIP +-1%	1/16W 18K	
R1045	ERJ2RKF3901X	MGF CHIP +-1%	1/16W 3.9K	
R1046	ERJ2GEJ561X	MGF CHIP	1/16W 560	
R1047	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R1049	ERJ2RKF5601X	MGF CHIP +-1%	1/16W 5.6K	
R1050	ERJ2RKF3901X	MGF CHIP +-1%	1/16W 3.9K	
R1051	ERJ2RKF4701X	MGF CHIP +-1%	1/16W 4.7K	
R1052	ERJ2GEJ153X	MGF CHIP	1/16W 15K	
R1056	ERJ3GEY0R00V	MGF CHIP	1/16W 0	
R1058	ERJ2RKF1802X	MGF CHIP +-1%	1/16W 18K	
R1059	ERJ2RKF8202X	MGF CHIP +-1%	1/16W 82K	
R1060	ERJ2GEJ822X	MGF CHIP	1/16W 8.2K	
R1061	ERJ2GEJ472X	MGF CHIP	1/16W 4.7K	
R1062	ERJ3GEY0R00V	MGF CHIP	1/16W 0	
R1065	ERJ2GEØRØØX	MGF CHIP	1/16W 0	
R2001	ERJ2GEØRØØX	MGF CHIP	1/16W 0	
R2005	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R2007	ERJ3GEYJ471V	MGF CHIP	1/16W 470	
R2010	ERJ2GEJ105X	MGF CHIP	1/16W 1M 1/16W 1M	
R2011	ERJ2GEJ105X	MGF CHIP		
	ERJ3GEYJ101V	MGF CHIP	1/16W 100	
R2013	ERJ2GEJ101X	MGF CHIP	1/16W 100 1/16W 100	
R2013 R2017	ERJ2GEJ101X ERJ2GEJ105X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M	
R2013 R2017 R2018	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X	MGF CHIP MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K	
R2013 R2017 R2018 R2019	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X ERJ2GEJ472X	MGF CHIP MGF CHIP MGF CHIP MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K	
R2013 R2017 R2018 R2019 R2020	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X ERJ2GEJ472X ERJ2GEJ223X	MGF CHIP MGF CHIP MGF CHIP MGF CHIP MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K	
R2013 R2017 R2018 R2019 R2020 R2021	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X ERJ2GEJ472X ERJ2GEJ223X ERJ2GEJ103X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 10K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X ERJ2GEJ472X ERJ2GEJ223X ERJ2GEJ103X ERJ2GEJ104X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 10K 1/16W 100K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ472X ERJZGEJ223X ERJZGEJ103X ERJZGEJ104X ERJZGEJ103X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 10K 1/16W 100K 1/16W 10K	
R2013 R2017 R2018 R2019 R2020 R2021 R2021 R2022 R2023 R2024	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X ERJ2GEJ472X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 10K 1/16W 100K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ477ZX ERJZGEJ223X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ104X ERJZGEJ242X ERJZGEJ242X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 100K 1/16W 100K 1/16W 10K 1/16W 2.4K 1/16W 4.3K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2022 R2023 R2024 R2025 R2026	ERJ2GEJ101X ERJ2GEJ105X ERJ2GEJ564X ERJ2GEJ472X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X ERJ2GEJ103X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 100K 1/16W 100K 1/16W 10K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ47ZX ERJZGEJ223X ERJZGEJ223X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 100K 1/16W 100K 1/16W 10K 1/16W 2.4K 1/16W 4.3K 1/16W 100K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2022 R2022 R2024 R2025 R2026 R2027 R2028	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ264X ERJZGEJ223X ERJZGEJ223X ERJZGEJ103X ERJZGEJ104X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 4.7K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 2.4K  1/16W 2.4K  1/16W 2.4K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 100K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2027 R2028 R2029	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ564X ERJZGEJ223X ERJZGEJ103X ERJZGEJ104X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ24ZX ERJZGEJ24ZX ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 4.7K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 2.2K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 75	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2027 R2028 R2029 R2030	ERJZGEJ101X ERJZGEJ105X ERJZGEJ105X ERJZGEJ564X ERJZGEJ263X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 4.7K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 2.2K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 75	
R2013 R2017 R2018 R2019 R2020 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2027 R2028 R2027 R2028 R2029 R2030 R2031	ERJZGEJ101X ERJZGEJ105X ERJZGEJ105X ERJZGEJ564X ERJZGEJ72X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ24ZX ERJZGEJ4ZX ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 22K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 2.4K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2028 R2029 R2030 R2031 R2032	ERJZGEJ101X ERJZGEJ105X ERJZGEJ105X ERJZGEJ564X ERJZGEJ261472X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ224ZX ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ750X ERJZGEJ103X ERJZGEJ103X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 22K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 00K  1/16W 00K  1/16W 00K  1/16W 00K  1/16W 10K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2028 R2029 R2031 R2031 R2031 R2032 R2033	ERJZGEJ101X ERJZGEJ105X ERJZGEJ105X ERJZGEJ564X ERJZGEJ564X ERJZGEJ23X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ242X ERJZGEJ242X ERJZGEJ242X ERJZGEJ104X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X	MGF CHIP	1/16W 1000 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 2.4K 1/16W 2.4K 1/16W 2.4K 1/16W 100K 1/16W 10K 1/16W 6.8K 1/16W 8.2K	
R2012 R2013 R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2026 R2027 R2028 R2029 R2030 R2031 R2031 R2032 R2033 R2035 R2035 R2036	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ564X ERJZGEJ223X ERJZGEJ103X ERJZGEJ104X ERJZGEJ103X ERJZGEJ104X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ750X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ750X ERJZGEJ750X ERJZGEJ750X ERJZGEJ750X ERJZGEJ1682X ERJZGEJ822X ERJZGEJ8273X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 4.7K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 2.4K  1/16W 2.4K  1/16W 2.4K  1/16W 2.4K  1/16W 1.0K  1/16W 2.2K  1/16W 7.5  1/16W 1.0K  1/16W 6.8K  1/16W 8.2K  1/16W 8.2K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2028 R2029 R2030 R2031 R2031 R2031 R2031 R2031 R2032 R2033 R2035	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ564X ERJZGEJ564X ERJZGEJ223X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ223X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ750X ERJZGEJ750X ERJZGEJ103X ERJZGEJ103X ERJZGEJ182ZX ERJZGEJ273X ERJZGEJ103X	MGF CHIP	1/16W 100 1/16W 100 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 2.2K 1/16W 1.0K 1/16W 2.2K 1/16W 4.3K 1/16W 100K 1/16W 1.0K 1/16W 1.0K 1/16W 1.0K 1/16W 1.0K 1/16W 1.0K 1/16W 1.0K 1/16W 5.2K 1/16W 6.8K 1/16W 6.8K 1/16W 2.7K 1/16W 2.7K 1/16W 10K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2028 R2029 R2030 R2031 R2031 R2032 R2033 R2033 R2035 R2036	ERJZGEJ101X ERJZGEJ105X ERJZGEJ564X ERJZGEJ564X ERJZGEJ564X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ223X ERJZGEJ750X ERJZGEJ750X ERJZGEJ750X ERJZGEJ103X ERJZGEJ82ZX ERJZGEJ82ZX ERJZGEJ82ZX ERJZGEJ73X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X	MGF CHIP	1/16W 100  1/16W 100  1/16W 1M  1/16W 560K  1/16W 4.7K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 10K  1/16W 2.4K  1/16W 4.3K  1/16W 100K  1/16W 2.4K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 100K  1/16W 0.2K  1/16W 0.2K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2028 R2028 R2029 R2030 R2031 R2031 R2032 R2033 R2035 R2035 R2035 R2037	ERJZGEJ101X ERJZGEJ105X ERJZGEJ105X ERJZGEJ564X ERJZGEJ262X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ242X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ750X ERJZGEJ750X ERJZGEJ750X ERJZGEJ103X ERJZGEJ682X ERJZGEJ73X ERJZGEJ73X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X	MGF CHIP	1/16W 1000 1/16W 1000 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 10K 1/16W 2.4K 1/16W 1.0K 1/16W 2.2K 1/16W 1.0K 1/16W 2.2K 1/16W 1.0K 1/16W 3.2K 1/16W 3.2K 1/16W 3.2K 1/16W 1.0K 1/16W 3.2K 1/16W 3.2K	
R2013 R2017 R2018 R2019 R2020 R2021 R2022 R2023 R2024 R2025 R2026 R2027 R2028 R2029 R2030 R2031 R2032 R2031 R2032 R2033 R2031 R2032 R2033 R2033 R2033 R2033 R2033 R2033 R2033 R2033 R2033 R2035 R2036 R2037 R2038	ERJZGEJ101X ERJZGEJ105X ERJZGEJ105X ERJZGEJ105X ERJZGEJ564X ERJZGEJ223X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ103X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ24ZX ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ104X ERJZGEJ103X ERJZGEJ750X ERJZGEJ103X	MGF CHIP	1/16W 1000 1/16W 1M 1/16W 560K 1/16W 4.7K 1/16W 22K 1/16W 10K 1/16W 22K 1/16W 75 1/16W 10K 1/16W 27K 1/16W 6.8K 1/16W 6.8K 1/16W 6.8K 1/16W 6.8K 1/16W 6.8K 1/16W 8.2K 1/16W 6.8K 1/16W 8.2K 1/16W 8.2K	

Ref. No.	Part No.	Part Nan	ne		Remarks
R2041	ERJ2GEJ105X	MGF CHIP	1/16W	1M	
R2042	ERJ2GEJ105X	MGF CHIP	1/16W	1M	
R2049	ERJ2GEJ103X	MGF CHIP	1/16W	10K	
R2050	ERJ2GEJ103X	MGF CHIP	1/16W	10K	
R2051	ERJ2GEJ103X	MGF CHIP	1/16W	10K	
R2052	ERJ2GEJ105X	MGF CHIP	1/16W	1M	
R2053	ERJ2GEJ105X	MGF CHIP	1/16W	1M	
R2054	ERJ2GEJ105X	MGF CHIP	1/16W	1M	
R2055	ERJ2GEJ101X	MGF CHIP	1/16W	100	
R2056	ERJ2GEJ101X	MGF CHIP	1/16W	100	
R2057 R2058	ERJ2GEJ101X ERJ2GEJ105X	MGF CHIP	1/16W	100 1M	
R2060	ERJ2GEJ224X	MGF CHIP	1/16W 1/16W 2		
R2063	ERJ2GEJ105X	MGF CHIP	1/16W 2	1M	
R2064	ERJ2GEJ103X	MGF CHIP	1/16W	10K	
R2065	ERJ2GEJ822X	MGF CHIP	1/16W 8		
R2066	ERJ2GEØRØØX	MGF CHIP	1/16W	0	•
R2068	ERJ2GEJ224X	MGF CHIP	1/16W 2	-	
R2069	ERJ2GEJ224X	MGF CHIP	1/16W 2		
R2072	ERJ2GEJ273X	MGF CHIP	1/16W	27K	
R2073	ERJ2GEØRØØX	MGF CHIP	1/16W	0	•
R2075	BK1005HS601T	BEAD INDUCTOR CHIP		600	
R2076	BK1005HS601T	BEAD INDUCTOR CHIP		600	
R2077	BK1005HS601T	BEAD INDUCTOR CHIP		600	
R2080	BK1005HS601T	BEAD INDUCTOR CHIP		600	
R2081	BK1005HS601T	BEAD INDUCTOR CHIP		600	
R3002	ERJ2GEJ331X	MGF CHIP	1/16W	330	
R3003	ERJ2GEØRØØX	MGF CHIP	1/16W	0	•
R3005	ERJ2GEJ331X	MGF CHIP	1/16W	330	
R3006	ERJ2GEØRØØX	MGF CHIP	1/16W	0	•
R3010	ERJ6GEYJ181V	MGF CHIP	1/10W	180	
R3011	ERJ2GEJ270X	MGF CHIP	1/16W	27	
R3012	ERJ2GEJ270X	MGF CHIP	1/16W	27	
R3016	ERJ2GEJ101X	MGF CHIP	1/16W	100	
R3020	ERJ2GEJ331X	MGF CHIP	1/16W	330	
R3021	ERJ2GEJ681X	MGF CHIP	1/16W	680	
R3030	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3031	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3032	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3033	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3034	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3035	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3036	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3037	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3038	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3039	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R3044	ERJ3GEY0R00V	MGF CHIP	1/16W	0	•
R3046	ERJ3GEY0R00V	MGF CHIP	1/16W	100	
R3051 R3052	ERJ2GEJ101X ERJ3GEY0R00V	MGF CHIP	1/16W 1/16W	100	
R3053	ERJ2GEJ103X	MGF CHIP	1/16W	10K	
R3054	ERJ2GEJ331X	MGF CHIP	1/16W	330	
R3201	ERJ2GEJ243X	MGF CHIP	1/16W	24K	
R3202	ERJ2GEJ222X	MGF CHIP	1/16W 2		
R3203	ERJ2GEJ221X	MGF CHIP	1/16W	220	
R4001	ERJ2GEJ102X	MGF CHIP	1/16W	1K	
R4002	ERJ2GEJ472X	MGF CHIP	1/16W 4		
R4003	ERJ2GEJ472X	MGF CHIP	1/16W 4		
R4004	ERJ2GEJ472X	MGF CHIP	1/16W 4		
R4012	ERJ2GEJ105X	MGF CHIP	1/16W	1M	
R4014	ERJ2GEJ333X	MGF CHIP	1/16W	33K	
R4015	ERJ2GEJ683X	MGF CHIP	1/16W	68K	
R4016	ERJ2GEJ472X	MGF CHIP	1/16W 4	1.7K	
R4017	ERJ2GEJ183X	MGF CHIP	1/16W	18K	
R4018	ERJ2GEJ472X	MGF CHIP	1/16W 4	1.7K	
R4020	ERJ2GEJ473X	MGF CHIP	1/16W	47K	
R4021	ERJ2GEJ223X	MGF CHIP	1/16W	22K	
R4022	ERJ2GEJ103X	MGF CHIP	1/16W	10K	
R4026	ERJ2GEJ683X	MGF CHIP	1/16W	68K	
R4027	ERJ2GEJ273X	MGF CHIP	1/16W	27K	
R4028	ERJ2GEJ273X	MGF CHIP	1/16W	27K	
R4029	ERJ2GEJ273X	MGF CHIP	1/16W	27K	
R4030	ERJ2GEJ154X	MGF CHIP	1/16W 1		
R4031	ERJ2GEJ154X	MGF CHIP	1/16W 1		
R4032	ERJ2GEJ154X	MGF CHIP	1/16W 1		
R4037	ERJ2GEJ104X	MGF CHIP	1/16W 1		
R4040	ERJ2GEJ363X	MGF CHIP	1/16W	36K	
R4041	ERJ2GEJ333X	MGF CHIP	1/16W	33K	

R4044	Part No.	Part Name		Remarks
	ERJ2GEJ181X	MGF CHIP	1/16W 180	
R4045	ERJ2GEJ391X	MGF CHIP	1/16W 390	
R4049	ERJ2GEJ132X	MGF CHIP	1/16W 1.3K	
R4050	ERJ2GEJ202X	MGF CHIP	1/16W 2K	
R4051	ERJ3GEYØRØØV	MGF CHIP	1/16W 0	•
R4057	ERJ2GEJ473X	MGF CHIP	1/16W 47K	
R4058	ERJ2GEJ473X	MGF CHIP	1/16W 47K	
R4062	ERJ2GEJ332X	MGF CHIP	1/16W 3.3K	
R4063	ERJ2GEJ332X	MGF CHIP	1/16W 3.3K	
R4064	ERJ2GEJ183X	MGF CHIP	1/16W 18K	
R4065	ERJ2GEØRØØX	MGF CHIP	1/16W 0	
R4066	ERJ3GEYØRØØV	MGF CHIP	1/16W 0	•
R4068	ERJ2GEØRØØX	MGF CHIP	1/16W 0	•
R7001	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7002	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7003	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7004	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7005	ERJ2GEJ562X	MGF CHIP	1/16W 5.6K	
R7006	ERJ2GEJ562X	MGF CHIP	1/16W 5.6K	
R7007	ERJ8GEYJ101V	MGF CHIP	1/8W 100	
R7008	ERJ2GEJ333X	MGF CHIP	1/16W 33K	
R7009	ERJ2GEJ333X	MGF CHIP	1/16W 33K	
R7010	ERJ2GEJ682X	MGF CHIP	1/16W 6.8K	
R7011	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7012	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7013	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7014	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7015	ERJ2GEJ103X	MGF CHIP	1/16W 10K	
R7016	ERJ3GEYØRØØV	MGF CHIP	1/16W 0	•
R7017	ERJ8GEYØRØØV	MGF CHIP	1/8W 0	•
011	2.130421011004		2/011 0	
	+	+		
		0.10.10.0000		
		CAPACITORS		
C1001	ECUV1C104KBV	C CHIP	16V 0.1	
C1002	ECUV1C104KBV	C CHIP	16V 0.1	
C1005	ECHU1H273JB5	POLYESTER CHIP +-5%	50V 0.027	
C1006	LSCUCAD180J	C CHIP +-5%	2KV 18P	
C1007	LSCUCAD180J	C CHIP +-5%	2KV 18P	
C1008	ECUV1E104KBN	C CHIP	25V 0.1	
C1009	ECST1CX106	TANTALUM CHIP	16V 10	
C1010	ECUV1H101JCQ	C CHIP +-5%	50V 100P	
C1011	ECUV1H101JCQ	C CHIP +-5%	50V 100P	
C1012	ECUV1H101JCQ	C CHIP +-5%	50V 100P	
C1013	ECUV1H102KBV	C CHIP	50V 1000P	
C1014	ECUV1H102KBV	C CHIP	50V 1000P	
	ECUV1H102KBV			
C1015	1	C CHIP	50V 1000P	
C1016	ECUV1H102KBV	C CHIP	50V 1000P	
C1017	ECUV1H101JCQ	C CHIP +-5%	50V 100P	
C1018	ECUV1C474KBN	C CHIP	16V 0.47	MKA
C1019	ECUV1H822KBV	C CHIP	50V 8200P	
C1020	ECUV1H102KBV	C CHIP	50V 1000P	
C1021	ECUV1H472KBV	C CHIP	50V 4700P	
C1022	ECUV1H102KBV	C CHIP	50V 1000P	
C1023	ECUV1C104KBV	C CHIP	16V 0.1	
C1024	ECUV1C224KBN	C CHIP	16V 0.22	
C1025	ECUV1C474KBN	C CHIP	16V 0.47	MKA
	1	TANTALUM CHIP		
C1026	ECSTØJY106		6.3V 10	
	VCUSQAA226ZF	C CHIP +80%-20%		
C1027				
C1027 C1028	VCUSQAA226ZF ECUV1H151JCQ	C CHIP +80%-20% C CHIP +-5%	10V 22 50V 150P	
C1027 C1028 C1029	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20%	10V 22 50V 150P 10V 22	
C1027 C1028 C1029 C1031	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP	10V 22 50V 150P 10V 22 16V 0.1	
C1027 C1028 C1029 C1031 C1032	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP	10V 22 50V 150P 10V 22 16V 0.1 50V 2200P	
C1027 C1028 C1029 C1031 C1032 C1033	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20%	10V 22 50V 150P 10V 22 16V 0.1 50V 2200P 10V 22	
C1027 C1028 C1029 C1031 C1032 C1033 C1034	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF VCUSQAA226ZF	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP +80%-20%	10V 22 50V 150P 10V 22 16V 0.1 50V 2200P 10V 22 10V 22	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP +80%-20% C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           10V         22           16V         2.2	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP +80%-20% C CHIP C CHIP C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           16V         2.2           16V         2.2           16V         2.2           20         2.2	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAC335KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           16V         2.2           16V         2.2           16V         3.3	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAA335KB VCUSQAA335KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           16V         2.2           16V         2.2           10V         3.3           10V         3.3           10V         3.3	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC22SKB VCUSQAC2ZSKB VCUSQA335KB VCUSQAC35KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           10V         2.2           16V         2.2           16V         3.3           10V         3.3           16V         2.2           2         2           2         2           2         2           2         2           3         3           3         3           4         2           2         2           2         2           3         3           3         3           4         2           2         2           2         2           3         3           4         3           4         3           5         4           6         6           7         6           8         7           9         8           10         8           10         8	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAA335KB VCUSQAA335KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           16V         2.2           16V         2.2           10V         3.3           10V         3.3           10V         3.3	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC22SKB VCUSQAC2ZSKB VCUSQA335KB VCUSQAC35KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           10V         2.2           16V         2.2           16V         3.3           10V         3.3           16V         2.2           2         2           2         2           2         2           2         2           3         3           3         3           4         2           2         2           2         2           3         3           3         3           4         2           2         2           2         2           3         3           4         3           4         3           5         4           6         6           7         6           8         7           9         8           10         8           10         8	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041 C1042	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAC225KB VCUSQAC335KB VCUSQAC335KB VCUSQAC225KB	C CHIP +80%-20% C CHIP +-5% C CHIP +-5% C CHIP C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP	10V         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           16V         2.2           16V         2.2           10V         3.3           10V         3.3           16V         2.2           6.3V         10	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1040 C1041 C1042 C1043	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAC335KB VCUSQAA335KB VCUSQAA335KB VCUSQAA335KB VCUSQAC225KB VCUSQAC225KB	C CHIP +80%-20% C CHIP +-5% C CHIP +-5% C CHIP C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP	10W         22           50V         150P           10V         22           16V         0.1           50V         2200P           10V         22           16V         2.2           16V         2.2           10V         3.3           10V         3.3           16V         2.2           6.3V         10           25V         1800P	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041 C1042 C1043 C1044	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H222KBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAC335KB VCUSQAA335KB VCUSQAA335KB VCUSQAA316KB ECUV1E18ZKBQ VCUSTAJ106KB ECUV1E18ZKBQ VCUSQAC105KB	C CHIP +80%-20% C CHIP +-5% C CHIP +-5% C CHIP C CHIP C CHIP C CHIP C CHIP +80%-20% C CHIP +80%-20% C CHIP	10W         22           50W         150P           10W         22           16W         2200P           10W         22           10W         22           16W         2.2           16W         2.2           10W         3.3           10W         3.3           10W         3.3           16W         2.2           6.3W         10           25W         1800P           6.3W         10	
C1026 C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041 C1042 C1042 C1043 C1044 C1045 C1045 C1046	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV VCUSQAA226ZF ECUV1C2KBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAC22SKB VCUSQAC22SKB VCUSQAC22SKB VCUSQAA33SKB VCUSQAA33SKB VCUSQAC22SKB VCUSQAC22SKB VCUSQAC22SKB VCUSQAC21SKB VCUSQAC20SKB VCUSQAC20SKB VCUSQAC20SKB VCUSQAC20SKB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP C CHIP C CHIP +80%-20% C CHIP +80%-20% C CHIP +80%-20% C CHIP	10W         22           50W         150P           10W         22           16W         2200P           10W         22           16W         22           16W         2.2           16W         3.3           16W         3.3           16W         2.2           16W         3.3           16W         2.2           20W         3.3           16W         2.2           18W         2.2           18W         3.3           18W	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041 C1041 C1042 C1043 C1044 C1045 C1045	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAC225KB VCUSQAC335KB VCUSQAC335KB VCUSQAC25KB VCUSQAC35KB VCUSQAC25KB VCUSQAC25KB VCUSQAC25KB VCUSQAC25KB VCUSTAJ106KB ECUV1E182KBQ VCUSTAJ106KB VCUSQAC105KB VCUSQAC105KB	C CHIP +80%-20% C CHIP +-5% C CHIP +80%-20% C CHIP	10W         22           50W         150P           16W         22           16W         2200P           10W         22           16W         2.2           16W         2.2           16W         3.3           16W         2.2           6.3W         10           25W         1800P           6.3W         10           16W         1           16W         1           16W         1           16W         1           16W         330P	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041 C1042 C1043 C1044 C1045 C1045 C1046 C1047	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC22SKB VCUSQAC22SKB VCUSQAC22SKB VCUSQAC335KB VCUSQAC335KB VCUSQAC335KB VCUSQAC325KB VCUSQAC105KB VCUSQAC225KB VCUSTAJ106KB ECUV1E18ZKBQ VCUSTAJ106KB ECUV1E18ZKBQ VCUSTAJ106KB ECUV11331KBV VCUSQAC225KB	C CHIP +80%-20% C CHIP +-5% C CHIP +-5% C CHIP +80%-20% C CHIP +80%-20% C CHIP +80%-20% C CHIP +80%-20% C CHIP	10W         22           50W         150P           10W         22           16W         0.1           10W         2200P           10W         22           16W         2.2           16W         2.2           10W         3.3           16W         2.2           6.3W         10           25W         1800P           6.3W         10           16W         1           50W         330P           16W         2.2	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1040 C1041 C1042 C1042 C1044 C1045 C1044	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC225KB VCUSQAC225KB VCUSQAC225KB VCUSQAC335KB VCUSQAC335KB VCUSQAC335KB VCUSQAC325KB VCUSQAC335KB VCUSQAC35KB VCUSQAC35KB VCUSQAC35KB VCUSQAC35KB VCUSQAC35KB ECUV1E182KBQ VCUSTAJ106KB ECUV1E182KBQ VCUSQAC105KB VCUSQAC105KB CCUV1H331KBV VCUSQAC225KB ECST1AX106	C CHIP +80%-20% C CHIP +-5% C CHIP +-5% C CHIP	10W         22           50W         150P           10W         22           16W         0.1           50W         2200P           10W         22           16W         2.2           16W         2.2           10W         3.3           10W         3.3           16W         2.2           6.3W         10           50W         10           16W         1           10W         1           10W         30P           16W         2.2           16W         2.2           16W         30P           16W         2.2           10W         30P           16W         2.2           10W         30P           16W         2.2           10W         30P           10W	
C1027 C1028 C1029 C1031 C1032 C1033 C1034 C1036 C1037 C1038 C1039 C1040 C1041 C1042 C1043 C1044 C1045 C1045 C1045 C1046 C1047	VCUSQAA226ZF ECUV1H151JCQ VCUSQAA226ZF ECUV1C104KBV ECUV1H22ZKBV VCUSQAA226ZF VCUSQAA226ZF VCUSQAA226ZF VCUSQAC22SKB VCUSQAC22SKB VCUSQAC22SKB VCUSQAC335KB VCUSQAC335KB VCUSQAC335KB VCUSQAC325KB VCUSQAC105KB VCUSQAC225KB VCUSTAJ106KB ECUV1E18ZKBQ VCUSTAJ106KB ECUV1E18ZKBQ VCUSTAJ106KB ECUV11331KBV VCUSQAC225KB	C CHIP +80%-20% C CHIP +-5% C CHIP +-5% C CHIP +80%-20% C CHIP +80%-20% C CHIP +80%-20% C CHIP +80%-20% C CHIP	10W         22           50W         150P           10W         22           16W         0.1           10W         2200P           10W         22           16W         2.2           16W         2.2           10W         3.3           16W         2.2           6.3W         10           25W         1800P           6.3W         10           16W         1           50W         330P           16W         2.2	

Ref. No.	Part No.	Part Name	e	Remarks
C1051	VCUSQAA335KB	C CHIP	10V 3.3	
C1052	VCUSTAJ106KB	C CHIP	6.3V 10	
C1053	VCUSQBA105KB	C CHIP	10V 1	
C1054	ECUV1H331KBV	C CHIP	50V 330P	
C1056	ECST1AX106	TANTALUM CHIP	10V 10	
C1057	ECSTØJY106	TANTALUM CHIP	6.3V 10	
C1060	ECUV1C104KBV	C CHIP	16V 0.1	
C1063	VCUSQAC225KB	C CHIP	16V 2.2	
C1064	ECSTØJY106	TANTALUM CHIP	6.3V 10	
C1065	ECUV1E182KBQ	C CHIP	25V 1800P	
C1066	ECUV1E821KBQ	C CHIP	25V 820P	
C2002	ECUV1H060CCQ	C CHIP +-0.25P	50V 6P	
C2003	ECUV1C104KBV	C CHIP	16V 0.1	
C2005	VCUSQBA225KB	C CHIP	10V 2.2	
C2006	ECUV1C104KBV	C CHIP	16V 0.1	
C2007	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C2008	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C2010	ECST1AX106	TANTALUM CHIP	10V 10	
C2011	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C2012	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C2013	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C2014	VCUSQEJ105KB	C CHIP	6.3V 1	
C2015	ECUV1C473KBV	C CHIP	16V 0.047	
C2016	ECST1AX106	TANTALUM CHIP	10V 10	
C2017	ECUV1E104KBN	C CHIP	25V 0.1	
C2018	ECST1CY475	TANTALUM CHIP	16V 4.7	
C2019	ECSTØJX336R	TANTALUM CHIP	6.3V 33	
C2020	ECSTØJX336R	TANTALUM CHIP	6.3V 33	
C2021	ECUV1H103KBN	C CHIP	50V 0.01	
C2022	ECUV1H103KBN	C CHIP	50V 0.01	
C2023	ECUV1H103KBN	C CHIP	50V 0.01	
C2024	ECUV1H103KBN	C CHIP	50V 0.01	
C2025	ECUV1C104KBV	C CHIP	16V 0.1	
C2030	ECST1EX475	TANTALUM CHIP	25V 4.7	
C2031	VCUSQBA105KB	C CHIP	10V 1	
C2033	VCUSQBA105KB	C CHIP	10V 1	
C2035	ECUV1C104KBV	C CHIP	16V 0.1	
C2036	ECUV1C104KBV	C CHIP	16V 0.1	
C3001	ECUV1C105ZFN	C CHIP +80%-20%		
C3003	ECSTØJX226	TANTALUM CHIP	6.3V 22	
C3004	ECUV1H100CCQ	C CHIP +-0.25P	50V 10P	
C3005	ECUV1C104KBV	C CHIP	16V 0.1	
C3007	ECUV1H100CCQ	C CHIP +-0.25P	50V 10P	
C3008	ECUV1C104KBV	C CHIP	16V 0.1	
C3010	ECUV1C104KBV	C CHIP	16V 0.1	
C3011	ECUV1H270JCQ	C CHIP +-5%	50V 27P	
C3029	ECUV1H680JCQ	C CHIP +-5%	50V 68P	
C3030	ECUV1H680JCQ	C CHIP +-5%	50V 68P	
C3031	ECUV1H151JCQ	C CHIP +-5%	50V 150P	
C3032	ECUV1H151JCQ	C CHIP +-5%	50V 150P	
C3033	ECUV1H680JCQ	C CHIP +-5%	50V 68P	
C3103	ECST1EX475	TANTALUM CHIP	25V 4.7	
C3105	ECST1CX106	TANTALUM CHIP	16V 10	
C3117	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C3118	ECUV1C105ZFN	C CHIP +80%-20%	16V 1	
C3119	ECST1AY106	TANTALUM CHIP	10V 10	
C3201	ECST1CY105	TANTALUM CHIP	16V 1	
C3202	ECUV1C104KBV	C CHIP	16V 0.1	
C3203	ECUV1C104KBV	C CHIP	16V 0.1	
C3204	ECUV1C104KBV	C CHIP	16V 0.1	
C3205	ECUV1C104KBV	C CHIP	16V 0.1	
C3206	ECUV1C104KBV	C CHIP	16V 0.1	
C3207	ECSTØJX226	TANTALUM CHIP	6.3V 22	
C3208	ECUV1C104KBV	C CHIP	16V 0.1	
C3209	ECST1CY105	TANTALUM CHIP	16V 1	
C3210	ECUV1C104KBV	C CHIP	16V 0.1	
C3211	ECUV1C104KBV	C CHIP	16V 0.1	
C3216	ECUV1C104KBV	C CHIP	16V 0.1	
C3217	ECUV1C104KBV	C CHIP	16V 0.1	
C3218	ECSTØJX476R	TANTALUM CHIP	6.3V 47	
C3220	ECUV1H221JCQ	C CHIP +-5%	50V 220P	
C4001	ECSTØJY106	TANTALUM CHIP	6.3V 10	
C4003	VCUSQAC475KB	C CHIP	16V 4.7	
C4004	VCUSQAC475KB	C CHIP	16V 4.7	
C4005	VCUSQAC475KB	C CHIP	16V 4.7	
C4006	ECST1AY106	TANTALUM CHIP	10V 10	
C4007	ECST1AY225	TANTALUM CHIP	10V 2.2	
C4008	ECUV1C104ZFQ	C CHIP +80%-20%		
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Ref. No.	Part No.	Part Name	Remarks
C4009	ECUV1C104KBV	C CHIP 16V 0.1	
C4010	ECUV1H561KBV	C CHIP 50V 560P	
C4011	VCUSQEJ105KB	C CHIP 6.3V 1	
C4012	ECST1CY475	TANTALUM CHIP 16V 4.7	
C4013	ECUV1C104KBV	C CHIP 16V 0.1	
C4014	VCUSQBC474KB	C CHIP 16V 0.47	
C4015	VCUSQBC474KB	C CHIP 16V 0.47	
C4016 C4017	VCUSQBC474KB VCUSQAJ106KB	C CHIP 16V 0.47 C CHIP 6.3V 10	
C4017	VCUSQAJ106KB	C CHIP 6.3V 10 C CHIP 6.3V 10	
C4019	VCUSQAJ106KB	C CHIP 6.3V 10	
C4021	ECUV1H102KBV	C CHIP 50V 1000P	
C4022	ECUV1H820JCQ	C CHIP +-5% 50V 82P	
C4023	ECUV1H561KBV	C CHIP 50V 560P	
C4024	ECUV1H221JCQ	C CHIP +-5% 50V 220P	
C4025	ECUV1C104ZFV	C CHIP +80%-20% 16V 0.1	
C4027	ECUV1C104ZFQ	C CHIP +80%-20% 16V 0.1	
C4028	ECUV1H471KBV	C CHIP 50V 470P	
C4036	ECUV1C103KBQ	C CHIP 16V 0.01	
C7001	ECSTØJX226	TANTALUM CHIP 6.3V 22	
C7002	VCUSQBA105KB	C CHIP 10V 1	
C7003	VCUSQBA105KB	C CHIP 10V 1	
C7004	ECUV1C104KBV	C CHIP 16V 0.1	
C7005	VCUSQBA105KB	C CHIP 10V 1	
C7006	VCUSQBA105KB	C CHIP 10V 1	
C7007	VCUSQBA105KB	C CHIP 10V 1	
C7008	VCUSQBA105KB	C CHIP 10V 1	
	+		
		COILS	
L1001	I SI 1CD101VE	COILS INDUCTOR CHIP 100	
L1001	LSLJCD101KF LSLJCD100KF	INDUCTOR CHIP 100	
L1003	LSLJCD100KF LSLJFA220KF	CHIP 22	
L1004 L1005	LSLJFA220KF	CHIP 22	
L1005	LSLJFA220KF	CHIP 22	
L1007	ERJ6GEY0R00V	MGF CHIP 1/10W 0	•
L1008	ELJPA100KF	CHIP 10	-
L1009	LSLJCD100KF	INDUCTOR CHIP 10	
L1010	LSLJBLA470KF	CHIP 47	
L2002	LSLJFA470KF	CHIP 47	
L2004	LSLJFA470KF	CHIP 47	
L2005	ERJ6GEYØRØØV	MGF CHIP 1/10W 0	•
L3001	VLQ0426J390	CHIP +-5% 39	
L3102	BK2125HS102T	BEAD INDUCTOR CHIP +-25% 1K	
L3103	BK2125HS102T	BEAD INDUCTOR CHIP +-25% 1K	
L3106	LSLJFA150KF	CHIP 15	
L3202	VLQ0426J270	CHIP +-5% 27	
L3203	LSLJFA150KF	CHIP 15	
L4001	LSLJFA150KF	CHIP 15	
L4003	LSLJFA150KF	CHIP 15	
L4004	LSLJFA470KF	CHIP 47	
L4005	VLQ0426J560	CHIP +-5% 56	
	1	CRYSTAL OSCILLATOR	
X2001	LSSX0005		
	+		
	+	DIN HEADEDS	
D1	I C ICPE1EDC	PIN HEADERS	
P1	LSJSRF15DG LSJSQG18DG	FPC CONNECTOR 15P	
P2	LSJSQG18DG LSJSFE70DC	FPC CONNECTOR 18P  FPC CONNECTOR 70P	
P3			
P4 P5	LSJSQG26DG LSJSRF22DG	FPC CONNECTOR 26P FPC CONNECTOR 22P	
P6	LSJSRF22DG LSJSQG21DG	FPC CONNECTOR 22P	
P9	LSJSSC06AG	FPC CONNECTOR 21P	
	( B )	5 commercial of	
	( )		
		SWITCHES	
SW2001	LSSP0012	PUSH SWITCH	
SW2002	LSSP0014	PUSH SWITCH	
SW2003	LSSP0014	PUSH SWITCH	
SW2004	LSSP0014	PUSH SWITCH	
SW2005	LSSP0014	PUSH SWITCH	
SW2006	LSSP0012	PUSH SWITCH	
SW2007	LSSP0012	PUSH SWITCH	
	II.		

Ref. No.	Part No.	Part Name	Remarks
	+	FIRE & DROTFOTOS	
52004	1.5550035030 <del>T</del>	FUSE & PROTECTOR	<b>A</b>
F2001	LSSF002C020T	FUSE 63V 2A	<u>/!\</u>
		TRANSFORMER	
T1001	LSLT0007		
T1002	LSLT0005		
T1003	LSLT0004		
		TEST PINS	
TP1001	LSJE0002	LIQUID CRYSTAL DISPLAY	
		BACKLIGHT PIN	
TP1002	LSJE0002	LIQUID CRYSTAL DISPLAY	
		BACKLIGHT PIN	
		MISCELLANEOUS	
		IMIOGELEAREOGO	
E21	LSMB0163	BATTERY TERMINAL -	
E22	LSMB0162	BATTERY TERMINAL +	
E23	LSMZ0219	MAIN P.C.B. BARRIER	
E24	LSSC0228	POWER SHIELD CASE, STEEL	
E25	COM18T1104	LIQUID CRYSTAL DISPLAY PANEL	
-		UNIT	
E26	LSSC0230	LIQUID CRYSTAL DISPLAY COVER	
E27	LSSC0229	LIQUID CRYSTAL DISPLAY HOLDER	
E28	LSMZ0220	LIQUID CRYSTAL DISPLAY BARRIER	
E29	LSMZ0234	BARRIER	
		JACK C.B.A.	
		DIODES	
D2101	MA3075WK	ZENER CHIP 7.5V	
D2102	MA3200WA	ZENER CHIP 20V	
D2103	MA3200WA	ZENER CHIP 20V	
D2104	MA3075WK	ZENER CHIP 7.5V	
D2105	MA3200WA	ZENER CHIP 20V	
		DECICEORO	
24402	ED 1065/00000/	RESISTORS	
R1103 R1104	ERJ8GEY0R00V		•
R2083	ERJ8GEY0R00V ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
N2003	EKJ3GETJ102V	Mdr Chir 1/10W IX	
		CAPACITORS	
C2101	EECSØHD104V	GOLD CAPACITOR 5.5V 0.1F	
C2102	ECUV1C104KBV	C CHIP 16V 0.1	
C2103	ECUV1C104KBV	C CHIP 16V 0.1	
		COILS	
L2101	BK1608HS102T	BEAD INDUCTOR CHIP +-25% 1K	
L2102	BK1608HS102T	BEAD INDUCTOR CHIP +-25% 1K	
L2103	FBM4516HS111	BEAD INDUCTOR	
L2104	FBM4516HS111	BEAD INDUCTOR	
L2105	LSLFCB1C102		
L2106	BK1608HS102T	BEAD INDUCTOR CHIP +-25% 1K	
	1		
	1		
V246:	FFD4/ 000 110	CRYSTAL OSCILLATOR	
X2101	EFBAL30D402	+	
	+		
		MISCELLANEOUS	
	+	MISCELLANEOUS	
E/11	15110126	DC TN TACK SOCKET	
E41	LSJJ0136	DC IN JACK SOCKET	
E42	LSJJ0137	MINI JACK SOCKET	
E43 E44	LSJJ0135	VIDEO OUT JACK SOCKET	
E44	LSMZ0236	BARRIER	
	+	+	
	+		
		+	

Ref. No.	Part No.	Part Name	Remarks
		CCD C.B.A.	
		INTEGRATED CIRCUITS	
IC3102	MN37741PT	IC, CCD	E.S.D.
		TRANSISTORS	
Q3101	2SC3931	CHIP	
		DIODES	
D3101	MA111	CHIP	
	OR 1SS355TE-17	CHIP	
		RESISTORS	
R1101	ERJ8GEYØRØØV		•
R1102 R3103	ERJ8GEY0R00V ERJ2GEJ104X	MGF CHIP 1/8W 0 MGF CHIP 1/16W 100K	•
R3105	ERJ2GEØRØØX		•
R3106	ERJ2GEØRØØX		•
R3107	ERJ2GEØRØØX		•
R3108 R3109	ERJ2GEØRØØX ERJ2GEØRØØX		•
R3110	ERJ2GEØRØØX ERJ2GEØRØØX	MGF CHIP 1/16W 0	-
R3111	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R3112	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R3113	ERJ2GEJ562X	MGF CHIP 1/16W 5.6K MGF CHIP 1/16W 47	
R3114 R3115	ERJ2GEJ470X ERJ2GEJ121X	MGF CHIP 1/16W 1/20	
R3117	ERJ2GEJ680X	MGF CHIP 1/16W 68	
		CAPACITORS	
C3104	ECST1CX106	TANTALUM CHIP 16V 10	
C3106	VCUSQAE105KB	C CHIP 25V 1	
C3107	ECST1EX475	TANTALUM CHIP 25V 4.7	
C3109	ECUV1H473ZFV	C CHIP +80%-20% 50V 0.047	
C3110 C3111	ECUV1E104ZFN ECUV1H102KBV	C CHIP +80%-20% 25V 0.1 C CHIP 50V 1000P	
C3115	ECUV1C473KBV	C CHIP 16V 0.047	
C3116	ECUV1C473KBV	C CHIP 16V 0.047	
C3121	ECUV1E473KBN	C CHIP 25V 0.047	
C3122 C3123	ECUV1H682KBV ECUV1C104KBV	C CHIP 50V 6800P C CHIP 16V 0.1	
C3123	ECUV1C104KBV	C CHIP 16V 0.1	
		0011.0	
L3104	BK2125HS102T	BEAD INDUCTOR CHIP +-25% 1K	
L3105	BK2125HS102T	BEAD INDUCTOR CHIP +-25% 1K	
		MISCELLANEOUS	
		IIIIOGEEEAITEOUG	
E51	LSSC0232	CCD SURFACE PLATE	
		ELECTRICAL PARTS	
		LOCATED ON CHASSIS	
E11	LSXK0071	HIC UNIT NR	
E12 E13	LSXK0072 LSEK0351	FLASH UNIT NR DISPLAY C.B.A. NR	
_13	( B )	DISCENT C.D.A. III	
		İ.	

Ref. No.	Part No.	Part Name	Remarks
		SUMMARY OF "E" ITEM NU	MBERS
		REFER TO ELECTRICAL PA	
		FOR MODEL INFORMATION	
E1	LSEP3003A1	MAIN C.B.A.	RTL
E1	LSEP3003B1	MAIN C.B.A.	RTL
E2	LSEP3007A1	JACK C.B.A.	
E3	LSEP3004A1	CCD C.B.A.	RTL
E11	LSXK0071	HIC UNIT NR	
E12	LSXK0072	FLASH UNIT NR	
E13	LSEK0351	DISPLAY C.B.A. NR	
E21	LSMB0163	BATTERY TERMINAL -	
E22	LSMB0162	BATTERY TERMINAL +	
E23	LSMZ0219	MAIN P.C.B. BARRIER	
E24	LSSC0228	POWER SHIELD CASE, STEEL	
E25	COM18T1104	LIQUID CRYSTAL DISPLAY PANEL	
		UNIT	
E26	LSSC0230	LIQUID CRYSTAL DISPLAY COVER	
E27	LSSC0229	LIQUID CRYSTAL DISPLAY HOLDER	
E28	LSMZ0220	LIQUID CRYSTAL DISPLAY BARRIER	
E29	LSMZ0234	BARRIER	
	LSMZ0234 LSJJ0136		
E41		DC IN JACK SOCKET	
E42	LSJJ0137	MINI JACK SOCKET	
E43	LSJJ0135	VIDEO OUT JACK SOCKET	
E44	LSMZ0236	BARRIER	
E51	LSSC0232	CCD SURFACE PLATE	
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# Panasonic<sup>®</sup> MATSUSHITA ELECTRIC